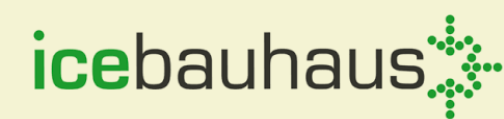**KAPITAL VIRTUAL ACADEMY** is a Juba based grass-roots film, art, design, and entertainment training initiative. The Virtual Academy is a key activity of the KAPITAL Movie collective, an independent group of young designers, filmmakers, IT professionals and artists. Tapping the hopes, aspirations and dedication to create a new future beyond conflict they have come together to address the acute post- independence social, political, educational and environmental challenges arising from decades of civil war, with an urgent need to pro-actively strengthen and amplify the voice of youth seeking to eradicate the senseless violence that has gripped the country from within.

**icebauhaus** is the German partner in the international icehubs-network of green-tech & social innovation hubs, geared towards a bottom-up strategy that combines both local and international trends with state-of-the-art technological developments. icebauhaus' work is primarily project-based and community oriented. The members are experts in various academic disciplines, entrepreneurs and generalists with a great deal of background experience in international cooperation. Main expertise and experiences: ICT in agriculture [ICT4ag], experimental building & low-cost housing, techhubs, maker spaces and innovation networks.

**rOg_agency** for open culture and critical transformation focuses on actual practice and projects embedded in communities. Its network aims to influence policy from the ground up, to inform and create better policy outcomes, extend networks and support – bringing together arts, culture, open development, civil society and transparency. rOg_agency's work taps into the power and breadth of contemporary free and public domain resources including open educational resources [OERs], free open source software [FOSS] and hardware, open data and open knowledge repositories.

KAPITAL Movie

icebauhaus

rOg
agency for
open culture
& critical transformation

**STEP-UP JUBA MEDIA LAB** is funded by the German Federal Ministry of International Cooperation and Development (BMZ) through its programme of "Support for Media, Access to Information and Freedom of Expression".

# jHUB

South Sudan's Open Knowledge and Innovation Hub

# OPEN LEARNING GUIDE

## WHAT IS jHUB?

**jHUB** creates an open knowledge and innovation space for South Sudanese youth to connect and collaborate, while providing an accessible resource centre for creative learning and exploration. Adopting an 'open system' approach, nurturing togetherness, socialisation, collaborative enterprise using hands-on, virtual, and e-learning digital environments as a means to understand South Sudan's diverse culture and structure. jHUB's capacity building and development elements are oriented towards open culture and are designed to take advantage of the wide range and accessibility of open source tools. These platforms and methodologies include extensive use and promotion of "Open Education Resources" (OERs).

jubahub.org

**The Open Learning Guide** is an outcome of "Step Juba Media Lab", a collaboration with Kapital Movie and the new jHUB community in South Sudan, produced with partners icebauhaus and rOg_agency for open culture and critical transformation in Berlin. The program is funded by the German Federal Ministry of International Cooperation and Development (BMZ) through its programme of "Support for Media, Access to Information and Freedom of Expression" in 2015.





## GLOSSARY

**Android** - is a robot designed to act and look like a human, and is now commonly known as a Linux-based open source mobile operating systems (OS), developed by Google for smart phones

**Blended Learning** - is a form of teaching and learning where the student learns at least part of the content and instruction via digital and online media with some element of student control over time, place, path, or pace (the Step-Up / icebauhaus e-Learning platform is intended to encourage both Blended Learning, promoting OERs and the development of P2P for learning)

**Code-a- thon (or Hackathon)** - Computer programmers and developers, visual and user experience designers collaborate intensively to build innovative software.

**DIY** - Do It Yourself

**DIWO** - Do It With Others

**ICT** - Information and Communications Technologies

**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 promoting open culture in South Sudan.

**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), traditional activities in arts and crafts which focus on using and learning practical skills and applying them to design and invention.

**MOOC** - Massive Open Online Courses offered by major universities for free study, aimed at unlimited participation and open access via the web.

**OER** - Open Educational Resources, which are are freely accessible, openly licensed documents and media that are useful for teaching, learning, or for research purposes

**P2P** - Peer to Peer ... a network that distributes tasks between peers (either similar computers, team members or colleagues). Peers are equal participants in an application or work pursuit. Graphically they form a de-centralised 'peer-to-peer' network of nodes, as opposed to a centralised system. P2P can also be considered a model of collaborative learning, sharing and passing on of knowledge among like minded participants. The KAPITAL Virtual Academy (KVA) developed through a P2P form of learning and mentoring.

**RFID** - Radio-frequency identification (RFID) is the wireless use of electromagnetic fields to transfer data, automatically identifying and tracking tags attached to objects.

**Up-Cycling** - Also known as 'creative reuse', the process of transforming by-products, waste materials, useless and/or unwanted products into new materials or products of better quality or for better environmental value.

**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.

**Wikipedia** - Collaborative global open encyclopaedia and knowledge resource.

# jHUB

## South Sudan's Open Knowledge and Innovation Hub

## OPEN LEARNING GUIDE

## OPEN LEARNING INTRODUCTION PEER2PEER (P2P) & ICT LITERACY

### iceHubs Global eLEARNING
jHUB eLearning materials: icebauhaus-elearning.de
Based on the Moodle (moodle.org) Knowledge Management System that uses open pedagogical principles to create online learning communities.

### P2P FOUNDATION
p2pfoundation.ning.com
The user generated Foundation for Peer to Peer Alternatives

### PEERAGOGY HANDBOOK
en.wikibooks.org/wiki/Peeragogy_Handbook_VI.O
sents a range of techniques
Peeragogy is another word for "peer learning". A range of techniques for self-motivated learners to connect with each other and develop stronger communities and collaborations.

### PEER-TO-PEER UNIVERSITY (P2PU)
courses.p2pu.org/en/
A university for the web. Built by an open community.

### WIKIPEDIA
wikipedia.org
Collaborative global open encyclopaedia and free knowledge resource.

## OPEN HARDWARE + ELECTRONICS

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

### APPROPEDIA
appropedia.org/Welcome_to_Appropedia
Sharing knowledge to build rich, sustainable lives.

### INSTRUCTABLES
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.

### 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."

## PEACE + INNOVATION

### ICT4PEACE
ict4peace.org
ICT4Peace facilitates improved, effective and sustained communication between communities involved in conflict prevention, mediation and peace building, through better understanding Information Communications Technology (ICT) & media.

### PEACEHACKCAMP
peacehackcamp.net
Bringing together peacebuilders, tech innovators and open culture advocates from across South Sudan and beyond to hack, code, make and collaborate for peace!

## eLEARNING RESOURCES

### ALISON ONLINE TRAINING
alison.com
Free, high-quality online education resources to help you develop essential, certified workplace skills. Sponsored by Google, Microsoft et al.

### EDX
edx.org
Access to free education for everyone. Harvard University, MIT & submit your own courses!

### ELEARNING AFRICA
elearning-africa.com
Perspectives on ICT, Education and Development in Africa
eLearning Africa news portal ela-newsportal.com

### KHAN ACADEMY
khanacademy.org
"You can learn anything." Global Classroom offers a free world class education for anyone, anywhere. Personalised learning dashboard to study at your own pace in and outside of the classroom. Maths, science, computer programming, art history, economics, and more.

### CRASH COURSE
youtube.com/user/crashcourse/playlists
Youtube channel with courses in Anatomy & Physiology, Astronomy, World History, Biology, Literature, Ecology, Economics, Chemistry, Psychology in short episodes.

### OPEN CULTURE
openculture.com/free_certificate_courses
Courses, movies, audio books, ebooks, textbooks, language lessons.

### SCHOOL OF LIFE
youtube.com/user/schooloflifechannel
Essays, philosophy, short video series.

## 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 I7, 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
videoandfilmmaker.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.

## 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
learnoutloud.com/Free-Audio-Video/Languages/English-as-a-Second-Language/English-for-Arabic-Speakers-Unit-I/41722
Learn english as an arab speaker

## 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.

## 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
ftacademy.org
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
railsgirls.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