



**INNOVATION &
INTELLECTUAL
PROPERTY**

COLLABORATIVE DYNAMICS IN AFRICA

**Editors: Jeremy de Beer, Chris Armstrong,
Chidi Oguamanam & Tobias Schonwetter**

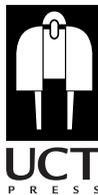
Innovation & Intellectual Property

Collaborative Dynamics in Africa

EDITORS:

JEREMY DE BEER, CHRIS ARMSTRONG,
CHIDI OGUAMANAM AND TOBIAS SCHONWETTER

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Preface

This book is among the key outputs of the Open African Innovation Research and Training (Open A.I.R.) Project. Based on case study research in nine African countries, the book examines the recent history and current on-the-ground realities of innovation and intellectual property (IP) in African settings. In doing so, the book reveals complex collaborative dynamics across a range of different countries, sectors and socio-economic contexts, and generates recommendations for how innovation and IP can be married with social and economic development objectives in African settings. This book's sister report, *Knowledge and Innovation in Africa: Scenarios for the Future*, situates the current realities covered in this book within a much longer historical trajectory and multiple potential futures.

Conceived in 2009, established in 2010 and launched in 2011, Open A.I.R. is a pan-African and globally interconnected research and training network, which was established to:

- raise IP awareness in African settings and facilitate critical policy engagement;
- empower a networked, epistemic IP community in Africa;
- identify IP-related innovation bottlenecks and modes of open collaboration; and
- interrogate IP-related innovation metrics, capital and power structures.

Open A.I.R. is financially supported by Canada's International Development Research Centre (IDRC) and Germany's Federal Ministry for Economic Cooperation and Development (BMZ), and collaborates with numerous other organisations and individuals – all of whom are recognised in the Acknowledgements' pages of this book. In addition to the aforementioned case study and foresight research, the Open A.I.R. network engages in a wide range of training, capacity building, outreach and policy engagement activities – both on the African continent and in settings outside the continent where matters of African innovation and IP are engaged. These engagements target external stakeholders capable of changing policies and practices, including:

- innovators, creators and entrepreneurs – individuals and companies;
- business groups such as chambers of commerce and industry associations;
- national, regional and international law-makers and policy-makers;
- issue leaders, such as politicians, judges, professors and practitioners;
- scientific and cultural research and development funding bodies;

- university researchers, administrators and technology transfer officials;
- rights-holders and collective rights management organisations; and
- representatives of indigenous and local communities.

Open A.I.R. is motivated by a vision in which innovation and creativity in Africa are sustainable, properly valued, collaborative, widely accessible and result in benefits that are distributed throughout society. Based on this vision, the network's mission is to better understand how innovation and IP processes work in African settings, how knowledge and technology currently protected by IP can be mobilised, and how IP systems can be harnessed or adapted in a manner that fosters openness-oriented collaborative innovation resulting in just distribution of new knowledge and technology.

This book and the *Scenarios* volume are two parts of a much broader attempt, by Open A.I.R. and other initiatives, to facilitate, in the medium to long term, the emergence of new, pragmatic means of valuing and facilitating innovation and creativity in Africa. Contextually appropriate metrics sensitive to the monitoring of meaningful changes in behaviour around innovation and creativity could be instrumental for promoting African grassroots entrepreneurship, broad-based business development, and a vibrant private sector built on small and medium-sized enterprises (SMEs) with a sustained ability to innovate. And the opportunities for innovation-driven SMEs could also benefit from policy-maker adoption of appropriate metrics when designing the policy and regulatory frameworks necessary to ensure predictable innovation environments for stakeholders.

Open A.I.R.'s core funders, IDRC and BMZ, have provided a framework for Open A.I.R.'s objectives. Open A.I.R. fits within the IDRC's Science and Innovation programme, which supports research and policy engagement in relation to how science, technology and innovation (STI) can be engines of socio-economic development. Within this programme, the Information and Networks (I&N) initiative, which funds the Open A.I.R. Project, aims to better understand the linkages among innovation, creativity, networked collaborations (often enabled via information and communication technologies [ICTs]), and determinants of openness – including IP rights. The IDRC also supported the precursor network to Open A.I.R., the African Copyright and Access to Knowledge (ACA2K) Project, which ran from 2007 to 2011 and generated the nucleus of the expert network now driving Open A.I.R.

BMZ supports Open A.I.R. via Germany's Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), under the GIZ commons@ip – Harnessing the Knowledge Commons for Open Innovation initiative. The commons@ip initiative focuses on how IP rights interact with open innovation, the knowledge commons, open licences and collaborative innovation. It is part of the BMZ-

mandated Train for Trade programme, which aims at strengthening the private sector and its constituent bodies in the Southern African Development Community (SADC) region through training and capacity building in export promotion, quality control and promotion of open innovation – as well as through promotion of local and regional economic development and trade.

Open A.I.R.'s training and capacity building components include:

- building the network's capacity – through online platforms, network-wide workshops, research methodology support, scenario-building meetings and thematic seminars;
- awarding Open A.I.R. Fellowships to emerging IP scholars and potential leaders – from Tanzania, Kenya, Uganda, Ethiopia, Cameroon, Nigeria and Egypt;
- exchanging knowledge through Africa-wide and South–South knowledge networking at seminars, workshops and conferences;
- growing awareness among African creators, innovators, entrepreneurs and policy-makers of openness-oriented approaches to innovation and IP matters in Africa; and
- teaching at African tertiary educational institutions, including development of a replicable, open course curriculum on IP law and development.

Because of the immense geographic size of the African continent, and unique logistical challenges of African intra-continental travel, ICTs have been instrumental in empowering the research network's "community of practice". Open A.I.R. has an offline presence in 14 African countries and in multiple countries outside the continent. Online, the network includes hundreds of individuals and institutions throughout Africa and from all corners of the globe, linked via a suite of online networking and social-media tools. The Open A.I.R. community of practice advances a culture of multidirectional exchange among African innovative and creative communities and external actors – with a view to sustainably empowering local communities and SMEs. Network members promote cross-fertilisation of ideas via original thinking and partnerships with national and international institutions, scholars, funding agencies, civil society organisations and other willing partners. Those wishing to join the community can visit <http://www.openair.org.za/join>.

Acknowledgements

True to its emphasis on “collaborative dynamics”, this book is the product of the collective energy of dozens of people and institutions in many countries, all of whom work within the Open African Innovation Research and Training (Open A.I.R.) network. Open A.I.R. currently has core network members and institutions in 14 African countries, spanning North Africa (Egypt, Tunisia), West Africa (Senegal, Ghana, Nigeria, Cameroon), East Africa (Ethiopia, Uganda, Kenya, Tanzania) and southern Africa (Malawi, Mozambique, Botswana and South Africa). Other network members and institutions are in Canada, the United States, the United Kingdom, Germany and France. These members are, in turn, linked – via online and offline interactions – to a broader Open A.I.R. network of hundreds of individuals and institutions, including people and entities in Brazil, India, Malaysia, Australia, Switzerland and the Netherlands. The network receives generous financial support from Canada’s International Development Research Centre (IDRC) and Germany’s Federal Ministry for Economic Cooperation and Development (BMZ).

Each of the editors and authors of this volume is part of, and collaboratively exchanges knowledge and expertise with, this large network, and we the editors, and each of the contributors, are profiled in “About the Editors” and “About the Contributors” sections of this book and on the Open A.I.R. website’s Team page, <http://www.openair.org.za/content/open-air-team>. On this Team page, one can also find the names and contact details of Open A.I.R. Fellows and other network members and institutions. The network is also accessible via its social media platforms, featured at <http://www.openair.org.za/join>

Open A.I.R.’s administrative hub is the IP Unit in the University of Cape Town Faculty of Law, where Project Manager Nan Warner and Administrator Phyllis Webb are the key operational drivers. Warner and Webb receive management support from two of the editors of this book (and the co-Principal Investigators of the Open A.I.R. Project), UCT IP Unit Director Tobias Schonwetter and Jeremy de Beer of the University of Ottawa Faculty of Law. Also supporting project management are Julie Nadler-Visser of UCT’s Research Contracts and IP Services (RCIPS) unit, members of the UCT Finance Department and Faculty of Law Finance Department, and another editor of this book: Chris Armstrong of the LINK Centre at the University of the Witwatersrand (Wits) in Johannesburg.

Network strategic guidance is provided by a Steering Committee composed of De Beer, Schonwetter, Warner, Chidi Oguamanam (another of this book’s

editors) of the University of Ottawa Faculty of Law, Nagla Rizk of The American University in Cairo (AUC), Sisule Musungu of IQsensato in Nairobi, Khaled Fourati of the IDRC office in Cairo, and Balthas Seibold of Germany's Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in Bonn. Further strategic support from the IDRC is, or has been, provided by Naser Faruqui, Simon Carter, Laurent Elder, Fernando Perini, Matthew Smith, Heloise Emdon and Phet Sayo; Karim Badran and Rose-Marie Ndiaye Pereira on financial matters; and Michelle Hibler and Nola Haddadian on publications. GIZ's involvement is focused on the capacity-building components of the network, which are carried out in collaboration with the GIZ's commons@ip – Harnessing the Knowledge Commons for Open Innovation initiative. At GIZ, in addition to support from the aforementioned Steering Committee member Balthas Seibold, who advises on matters of international knowledge cooperation and networking, support has also come from Petra Hagemann, Christine de Barros Said, Ursula van Look, Marina Neuendorff, Margrit Brockhaus and the Working Group of German Development Organisations on Promoting Innovation Systems. At UCT, as well as those already mentioned, key supporters and collaborators have been the Dean of Law, PJ Schwikkard, Lee-Ann Tong in the Faculty of Law, and, in the IP Unit, the Unit's founder Julian Kinderlerer, its Deputy Director Caroline Ncube and its Senior Research Fellow Bernard Maister. At the University of Ottawa, in addition to those already mentioned, support has been provided by the Dean of the Faculty of Law, Common Law Section, Nathalie Des Rosiers, and Former Dean Bruce Feldthusen.

For this book, key network participants were the team of JD candidates in the University of Ottawa Faculty of Law – Lukas Frey, Will Sapp, Phil Holdsworth, Maya Boorah, Kristen Holman and Saara Punjani – who provided long hours of diligent editorial assistance. In addition, because the research case studies presented in this book all required collection of data from human subjects – via interviews and/or focus group discussions and/or written surveys – this book would not have been possible without the cooperation of dozens of respondents across the countries of study. For reasons of confidentiality, most survey and interview respondents are not named in this book, but we are sincerely grateful for their contributions. Also contributing to the research outlined in this book was Donna Podems of OtherWISE in Cape Town, who advised on research methodologies and supported a methodology workshop for several of the authors featured in this volume, in addition to her support of Open A.I.R.'s monitoring and evaluation (M&E) framework. At this book's publisher, UCT Press, the key drivers have been Publisher Sandy Shepherd and Project Manager Glenda Younge. The cover design for this volume is by Elsabe Gelderblom of Farm Design in Cape Town, who does all of Open A.I.R.'s design work for its website, social media tools, PR materials,

Briefing Notes and the network's other substantial publication output, the Open A.I.R. *Scenarios* compendium – which is available in hard-copy, and on the Open A.I.R. website, as a separate published output and companion to this book.

Network headquarters at the UCT IP Unit serves as Open A.I.R.'s Southern Africa Hub, coordinated by Project Manager Warner. There are also four other Hubs: the North Africa Hub at the Access to Knowledge for Development Center (A2K4D) of the School of Business at The American University in Cairo (AUC), coordinated by Nagham El Houssamy under the direction of Nagla Rizk; the West Africa Hub at the Nigerian Institute of Advanced Legal Studies (NIALS) in Lagos, coordinated by Helen Chuma-Okoro under the direction of Adebambo Adewopo; the East Africa Hub at the Centre for IP and IT Law (CIPIT) of Strathmore University, Nairobi, coordinated by CIPIT Director Isaac Rutenberg; and the Canada Hub at the University of Ottawa Faculty of Law, coordinated by De Beer and Oguamanam. Contact can be made with these Hubs and Hub Coordinators via the aforementioned Open A.I.R. website Team page.

Also integral to the success of the network are its nine Fellows, each of whom has spent time at the UCT IP Unit in Cape Town. The Fellows have contributed to Open A.I.R.'s case study and foresight research, to outreach and training work, and to building the network. The nine Fellows are: Esther Ngom of the Ngo Nyemeck law firm in Yaoundé; Seble Baraki of the Justice and Legal System Research Institute (JLSRI) in Addis Ababa; Moses Mulumba of the Centre for Health, Human Rights and Development (CEHURD) in Kampala; Douglas Gichuki of CIPIT in Nairobi; Milton Lore of Bridgeworks Africa in Nairobi; Eliamani Laltaika of the Tanzania Intellectual Property Rights Network (TIP-Net) in Dar es Salaam; Alexandra Mogyoros, a student in the Faculty of Law at the University of Ottawa; West Africa Hub Coordinator Helen Chuma-Okoro of NIALS in Lagos; and North Africa Hub Coordinator Nagham El Houssamy of A2K4D in Cairo.

Other collaborating institutions are the Program on Information Justice and Intellectual Property (PIJIP) at the Washington College of Law at American University in Washington, DC; the Centre for Technology and Society (CTS) in Brazil; the Centre for Internet and Society (CIS) in India; and the Open Society Foundations, where Open A.I.R.'s key partner is Vera Franz. The Open A.I.R. network has also benefited from interaction with staff at the World Intellectual Property Organisation (WIPO) headquarters in Geneva. In London, Shirin Elahi of Scenarios Architecture is the driver of Open A.I.R. foresight research work, as featured in the aforementioned *Scenarios* compendium that provides an important forward-looking complement to the current picture offered by this volume. Jo Higgs of Go Trolley Films in Cape Town did post-production on the videos available on the Open A.I.R. YouTube channel – videos which show how the network came into being and how the research was conceptualised.

All the people and institutions mentioned here have in one way or another played a role, by collaborating within the Open A.I.R. network, in the conceptualisation, planning, data collection, data analysis, writing, editing, design and production processes that resulted in successful research and the completion of this book. It is hoped that this volume's free availability online, under a Creative Commons (CC) licence, will ensure that the book's collaborative dynamics do not end here at the moment of publication, and continue long into the future in the work of the still-growing Open A.I.R. community.

*Jeremy de Beer, Chris Armstrong, Chidi Oguamanam, Tobias Schonwetter
September 2013*

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Acronyms and Abbreviations

| | |
|------------|--|
| A2K | access to knowledge |
| A2K4D | Access to Knowledge for Development Center (The American University in Cairo, Egypt) |
| AAU | Addis Ababa University |
| ABS | access and benefit-sharing |
| ACA2K | African Copyright and Access to Knowledge Project |
| ACP | African, Caribbean and Pacific Group of States |
| ACTS | African Centre for Technology Studies (Kenya) |
| ADPP | Ajuda de Desenvolvimento de Povo para Povo (Mozambique) |
| AERC | African Economic Research Consortium |
| AFTE | Association for the Freedom of Thought and Expression (Egypt) |
| AGOA | African Growth and Opportunity Act |
| AIM | Agência de Informação de Moçambique |
| AmCham | American Chamber of Commerce (Egypt) |
| ARC | Aquaculture Research Centre (Egypt) |
| ARIPO | African Regional Intellectual Property Organisation |
| ASSAf | Academy of Sciences of South Africa |
| ASTII | African Science, Technology and Innovation Indicators |
| ATO | alternative trading organisation |
| ATPC | African Trade Policy Centre |
| ATPS | African Technology Policy Studies Network |
| AU | African Union |
| AUC | The American University in Cairo |
| B-BBEE Act | Broad-Based Black Economic Empowerment Act 53 of 2003 (South Africa) |
| BCP | bio-cultural community protocol |
| BIH | Botswana Innovation Hub |
| BMZ | Federal Ministry for Economic Cooperation and Development (Germany) |
| BoI | Bank of Industry (Nigeria) |
| BOTEC | Botswana Technology Centre |
| BPR | business process re-engineering |
| CAA | Cocoa Abrabopa Association (Ghana) |
| CARICOM | Caribbean Community |
| CBD | Convention on Biological Diversity |
| CBN | Central Bank of Nigeria |

| | |
|---------|--|
| CC | Creative Commons |
| CCIA | Computer and Communications Industry Association |
| CEDAT | College of Engineering, Design, Art and Technology (Makerere University, Uganda) |
| CEHURD | Centre for Health, Human Rights and Development (Uganda) |
| CEPIL | Centre for Public Interest Law (Ghana) |
| CIGI | Centre for International Governance Innovation |
| CIPC | Companies and Intellectual Property Commission (South Africa) |
| CIPIT | Centre for IP and IT Law (Strathmore University, Kenya) |
| CIPO | Canadian Intellectual Property Office |
| CIPR | Commission on Intellectual Property Rights (UK) |
| CMO | collective management organisation |
| COCOBOD | Ghana Cocoa Board |
| CPD | Centre for Policy Dialogue (Nigeria) |
| CRTT | Centre for Research in Transportation Technologies (Makerere University, Uganda) |
| CSIR | Council of Scientific and Industrial Research (India) |
| CTEA | Copyright Term Extension Act (US) |
| CVCP | Committee of Vice-Chancellors and Principals (UK) |
| DACST | Department of Arts, Culture, Science and Technology (South Africa) |
| DEST | Department of Education, Science and Training (Australia) |
| DFID | Department for International Development (UK) |
| DHET | Department of Higher Education and Training (South Africa) |
| DNS | domain name system |
| DRC | Democratic Republic of Congo |
| DRM | digital rights management |
| DRST | Department of Research, Science and Technology (Botswana) |
| DST | Department of Science and Technology (South Africa) |
| DTI | Department of Trade and Industry (South Africa) |
| EAEP | East African Educational Publishers (Kenya) |
| EC | European Commission |
| ECBP | Engineering Capacity Building Program (Ethiopia) |
| ECOWAS | Economic Community of West African States |
| ECX | Ethiopia Commodity Exchange |
| EEAA | Egyptian Environmental Affairs Agency |
| EIPO | Ethiopian Intellectual Property Office |
| EIPRL | Egyptian Intellectual Property Rights Law |
| EPA | Environmental Protection Authority (Ethiopia) |
| EPO | European Patent Office |
| EST | environmentally sound technology |

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| EU | European Union |
| EUEI | EU Energy Initiative |
| Eurostat | Statistical Office of the European Communities |
| FAO | UN Food and Agriculture Organisation |
| FCN | Friendship, Commerce and Navigation (Kenya) |
| FDI | foreign direct investment |
| FDRE | Federal Democratic Republic of Ethiopia |
| FDSE | Free Day Secondary Education (Kenya) |
| FES | Friedrich Ebert Stiftung (Germany) |
| FLO | Fairtrade Labelling Organisations International |
| FOSS | free and open source software |
| FPE | Free Primary Education (Kenya) |
| FTA | free trade agreement |
| GDP | gross domestic product |
| GEM | Global Entrepreneurship Monitor |
| GERD | gross expenditure on research and development |
| GI | geographical indication |
| GIPC | Global Intellectual Property Center |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit (Germany) |
| GM | genetically modified |
| GOAN | Ghana Organic Agriculture Network |
| GOK | Government of Kenya |
| GR | genetic resources |
| GTZ | German Technical Cooperation |
| HSRC | Human Sciences Research Council (South Africa) |
| ICANN | Internet Corporation for Assigned Names and Numbers |
| ICIDSS | International Creativity and Innovation Development Support Services (Ethiopia) |
| ICJ | International Commission of Jurists |
| ICLS | International Conference of Labour Statisticians |
| ICPSK | Institute of Chartered Public Secretaries of Kenya |
| ICT | information and communication technology |
| ICT4D | ICT for development |
| ICTSD | International Centre for Trade and Sustainable Development |
| IDC | Industrial Development Corporation (South Africa) |
| IDLO | International Development Law Organisation |
| IDRC | International Development Research Centre (Canada) |
| IDS | Institute of Development Studies (Kenya) |
| IE | informal economy |

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| IFC | International Finance Corporation |
| IICA | Inter-American Institute for Cooperation on Agriculture |
| IIDMM | Institute of Infectious Disease and Molecular Medicine (South Africa) |
| IIED | International Institute for Environment and Development |
| IIPA | International Intellectual Property Alliance |
| IISD | International Institute for Sustainable Development |
| ILC | indigenous and local community |
| ILO | International Labour Organisation |
| INAO | Institut national des appellations d'origine (France) |
| IP | intellectual property |
| IPA | Industrial Property Act (Botswana) |
| IPC | International Patent Classification |
| IPI | Industrial Property Institute (Mozambique) |
| IPR-PFRD Act | Intellectual Property Rights from Publicly Financed Research and Development Act (South Africa) |
| IRB | Institutional Review Board (Botswana) |
| IRENA | International Renewable Energy Agency |
| ISAS | integrated seawater agriculture system |
| ISCTEM | Instituto Superior de Ciências e Tecnologia de Moçambique |
| ISI | Institute for Scientific Information |
| ISO | International Organisation for Standardisation |
| ISP | Information Society Project (Yale University, US) |
| ITC | International Trade Centre |
| JBEDC | Japan Bio-Energy Development Corporation |
| JITAP | Joint Integrated Technical Assistance Programme |
| JLSRI | Justice and Legal System Research Institute (Ethiopia) |
| K2C Biosphere | Kruger to Canyons Biosphere (South Africa) |
| KE | knowledge economy |
| KECOBO | Kenya Copyright Board |
| KENFAA | Kenya Nonfiction and Academic Authors' Association |
| KES | Kenyan Shilling |
| KHA | Kenya Historical Association |
| KICD | Kenya Institute of Curriculum Development |
| KIPI | Kenya Industrial Property Institute |
| KIPRA | Kenya Institute for Public Policy Research and Analysis |
| KNAS | Kenya National Academy of Sciences |
| KOLA | Kenya Oral Literature Association |
| KTO | knowledge transfer office |
| LBC | Licensed Buying Company (Ghana) |
| LDC | least developed country |

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| LE | Egyptian Pound |
| LINK Centre | Learning Information Networking Knowledge Centre (Wits University, South Africa) |
| LSK | Law Society of Kenya |
| MAN | Manufacturers Association of Nigeria |
| MANCAP | Mandatory Conformity Assessment Programme (Nigeria) |
| MCH | Maasai Cultural Heritage Organisation (Kenya) |
| MCST | Ministry of Communications, Science and Technology (Botswana) |
| MCT | Ministério da Ciência e Tecnologia (Mozambique) |
| MDCA | Malindi District Cultural Association (Kenya) |
| MDG | Millennium Development Goal |
| MEA | Multilateral Environmental Agreement |
| MIST | Ministry of Infrastructure, Science and Technology (Botswana) |
| MIT | Massachusetts Institute of Technology |
| MOA | Ministry of Agriculture (Ethiopia) |
| MOE | Ministry of Education (Ethiopia) |
| MOFA | Ministry of Food and Agriculture (Ghana) |
| MoFED | Ministry of Finance and Economic Development (Ethiopia) |
| MOST | Ministry of Science and Technology (Ethiopia) |
| MoU | memorandum of understanding |
| MRC | Medical Research Council (South Africa) |
| Natoil | Natural Oil Company (Egypt) |
| NACI | National Advisory Council on Innovation (South Africa) |
| NCC | Nigerian Copyright Commission |
| NDA | non-disclosure agreement |
| NEP | National Enquiry Point (Botswana) |
| NEPAD | New Partnership for Africa's Development |
| NESC | National Economic and Social Council (Kenya) |
| NESTI | National Experts on Science and Technology Indicators |
| NIALS | Nigerian Institute of Advanced Legal Studies |
| NRF | National Research Foundation (South Africa) |
| NGO | non-governmental organisation |
| NIALS | Nigerian Institute of Advanced Legal Studies |
| NIPMO | National Intellectual Property Management Office (South Africa) |
| NIS | national innovation system |
| NMIMS | Narsee Monjee Institute of Management Studies (India) |
| NPR | National Public Radio (US) |
| NPSB | National Policy and Strategy on Biofuels (Mozambique) |
| NRC | National Research Centre (Egypt) |

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| NREA | New and Renewable Energy Authority (Egypt) |
| NWLR | Nigerian Weekly Law Report |
| OA | open access |
| OAPI | Organisation africaine de la propriété intellectuelle |
| OCEES | Oxford Centre for the Environment, Ethics and Society |
| OCFCU | Oromia Coffee Farmers Cooperative Union (Ethiopia) |
| ODEL | open, distance and electronic learning |
| ODI | Overseas Development Institute (UK) |
| OECD | Organisation for Economic Co-operation and Development |
| OER | open educational resource |
| Open A.I.R. | Open African Innovation Research and Training Project |
| ORD | Office of Research and Development (Botswana) |
| PBIP | place-based intellectual property |
| PCT | Patent Cooperation Treaty |
| Petromoc | Petróleos de Mozambique |
| PIIPA | Public Interest Intellectual Property Advisors (US) |
| PIJIP | Program on Information Justice and Intellectual Property (American University, US) |
| PPS | probability proportional to size |
| PRO | public research organisation |
| ProBEC | Programme for Basic Energy and Conservation in Southern Africa |
| R&D | research and development |
| RCIPS | Research Contracts and IP Services unit (UCT, South Africa) |
| RIPCO (B) | Rural Industrial Promotion Company (Botswana) |
| RMI | rights management information |
| SADC | Southern African Development Community |
| SARUA | Southern African Regional Universities Association |
| SCE | Society for Critical Exchange (Kenya) |
| SID | Society for International Development (Kenya) |
| SINER-GI | Strengthening International Research on Geographical Indications |
| SME | small and medium enterprise |
| SMIEIS | Small and Medium Industries Equity Investments Scheme (Nigeria) |
| SMME | small, micro and medium enterprise |
| SNA | social network analysis |
| SON | Standards Organisation of Nigeria |
| SPS | sanitary and phytosanitary measures |
| STCI | Science and Technology Capacity Index |
| STEP | Science Technology and Economic Policy (US) |
| STI | science, technology and innovation |
| STS | Society for Technology Studies (Ethiopia) |

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| SVKM | Shri Vile Parle Kalamani Mandal (India) |
| TBT | technical barriers to trade |
| TCE | traditional cultural expression |
| TGE | Transitional Government of Ethiopia |
| THE | Times Higher Education (UK) |
| THRIP | Technology and Human Resources Programme (South Africa) |
| TIA | Technology Innovation Agency (South Africa) |
| TIP-Net | Tanzania Intellectual Property Rights Network |
| TISC | Technology and Innovation Support Center |
| TK | traditional knowledge |
| TKDL | Traditional Knowledge Digital Library (India) |
| TPMs | technological protection measures |
| TRIPS | Agreement on Trade-Related Aspects of Intellectual Property Rights |
| TTO | technology transfer office |
| TVET | Technical and Vocational Education and Training (Ethiopia) |
| UB | University of Botswana |
| UCC | Universal Copyright Convention |
| UCITA | Uniform Computer Information Transactions Act (US) |
| UCT | University of Cape Town (South Africa) |
| UEM | Eduardo Mondlane University (Mozambique) |
| UGT | Uganda Gatsby Trust |
| UK | United Kingdom |
| UM | utility model |
| UNCST | Uganda National Council for Science and Technology |
| UNCTAD | UN Commission on Trade and Development |
| UNDESA | UN Department of Economic and Social Affairs |
| UNDP | UN Development Programme |
| UNECA | UN Economic Commission for Africa |
| UNEP | UN Environment Programme |
| UNESCAP | UN Economic and Social Commission for Asia and the Pacific |
| UNESCO | UN Educational, Scientific and Cultural Organisation |
| UNFCCC | UN Framework Convention on Climate Change |
| UNICAMP | University of Campinas (Brazil) |
| UNIDO | UN Industrial Development Organisation |
| Unilag | University of Lagos |
| US | United States |
| USAID | US Agency for International Development |
| USPTO | US Patent and Trademark Office |
| WAK | Writers Association of Kenya |
| WATH | West Africa Trade Hub |

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| WBCSD | World Business Council for Sustainable Development |
| WCT | WIPO Copyright Treaty |
| WEF | World Economic Forum |
| WEP | World Employment Programme |
| WHO | World Health Organisation |
| WIPO | World Intellectual Property Organisation |
| Wits | University of the Witwatersrand (South Africa) |
| WPIS | WIPO Patent Information Service |
| WPPT | WIPO Performances and Phonograms Treaty |
| WTO | World Trade Organisation |
| ZAR | South African Rand |

Chapter 9

Reflections on Open Scholarship Modalities and the Copyright Environment in Kenya

Ben Sihanya¹

Abstract

This chapter outlines findings from research into the attitudes of Kenyan scholarly publishing stakeholders towards open scholarship and alternative publishing. The findings indicate a mix of interest and reticence in relation to open access (OA) and other modes of alternative publishing. For instance, the authors surveyed recognise the potential of alternative publishing to enhance their scholarly profiles, but at the same time they fear potential dilution of the economic rights afforded to them by copyright law. The chapter concludes with suggestions on how Kenya's copyright environment could be made more amenable to open scholarship.

1. Introduction: open scholarship and copyright in Kenya

One of the most remarkable phenomena in the 21st century has been the emergence and development of the knowledge economy (KE), or “informationalism”. The KE has been defined as one in which the generation and exploitation of knowledge plays a predominant part in the creation of wealth (Houghton, 2010). Castells (2004a) describes the concept of informationalism as a technological paradigm based on augmentation of human capacity for information processing and communication, made possible by revolutions in microelectronics, software and genetic engineering. Microelectronics, software, computation, telecommunications and digital communications are all components of one integrated system. This phenomenon of informationalism is characterised by a predominant position for knowledge in the creation of wealth and development, as precipitated

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by the emergence of a new technological paradigm based on information and communication technology (ICT) (Benkler, 2006; Castells and Cardoso, 2005; Castells, 2004a). Rather than the mere opening up of new frontiers of knowledge, the KE is characterised by more effective use and exploitation of numerous types of knowledge in diverse types of economic activities.

Kenya, the case study country for this research project, is aspiring to become a knowledge-intensive economy. According to Kenya's current main policy blueprint, Vision 2030 (GOK, 2007), the country's development should be influenced by relevant educational provision and, in turn, by evidence-based policy-makers. Such education and decision-making require high-quality, creative and critical scholarly literature. The aforementioned new technological paradigm has changed the fundamentals of scholarly publishing globally and in Kenya. The new paradigm has resulted in a mix of offline print publishing and digital publishing via the internet and other related digital media.

Digital publishing outlets include e-journals, lists, blogs, websites, social networks and wikis. There have been radical changes in the traditional roles of authors, publishers, information managers and other key actors in the scholarly publishing arena. And a raging global debate has been sparked on the right to access knowledge freely as a "public good", and on the role of access to knowledge (A2K) (Benkler, 2006; Broumas, 2008). These arguments have often pitted the author and the user/consumer against each other. Proponents of "open access" (OA) by the public to scholarly works argue that free access to scholarly knowledge is essential to socio-economic development.

Also of relevance to the new publishing dynamics is the emerging concept of "open development": development powered by networked knowledge (see Smith *et al.*, 2011). Open development is centred around principles of collaboration, participation and inclusiveness in the networks and institutions, broadly conceived, that shape people's lives. Some of these principles have been recognised in the Constitution of Kenya of 2010 (Sihanya, 2013a, 2013b, forthcoming 2013).

Opposing the OA position are proponents of limited access, who argue that to sustain the generation of high-quality knowledge by the scholar, the scholar must be compensated by way of royalties and other forms of direct financial remuneration (Wasamba and Sihanya, 2012). "Open scholarship", via OA, has emerged as a concept that could change the business models in the education and information industries in Kenya and internationally. The traditional business model for publishing scholarly works primarily entailed the payment of royalties by the publisher to the author under a contract of transfer or assignment of copyright (for print publishing). Subscriber-based online access arrangements (for electronic publishing) then emerged (Wasamba and Sihanya, 2012). Today, three main alternative publishing models predominate: online subscription

publishing, online OA publishing and online OA self-archiving (Houghton, 2010). Open scholarship and OA approaches alter the traditional relationships among the author, the publisher, the information manager or librarian and the knowledge consumer. OA approaches throw into confusion the main doctrine that has traditionally animated these relationships: copyright. There is now varied opinion as to whether copyright law promotes or undermines the momentum towards open scholarship.

The production of scholarly literature is at a sub-optimal level in Kenya. It seems likely that Kenya's dearth of scholarly publishing in some disciplines is due, to some extent, to limitations in author development and book authorship, and limitations in publishing and distribution (both off-line and online). It also seems likely, as this chapter argues, that the emerging open-scholarship publishing paradigm has yet to pick up momentum in Kenya partly because of the country's sub-optimal copyright environment.

Research problem

The emerging concepts of OA, open scholarship and alternative scholarly publishing pose challenges not just to authors, publishers, information managers and users, but also to policy-makers and related stakeholders. There are important questions regarding how authors and publishers are to benefit economically in an open scholarship context. And what role must copyright policy-makers and technocrats and administrators play? The design of copyright and related rights systems has traditionally been based on balancing two main theoretical perspectives: (1) that copyright protection acts as an incentive to promote innovation and creativity; and (2) that over-strong copyright protection will be an impediment to free and open exchange of educational and entertainment materials, culture and knowledge, thereby stifling creativity and development (Sihanya, 2013b). The concepts of OA, open scholarship and alternative scholarly publishing serve to intensify the tensions between these two perspectives.

I sought, through the research study outlined in this chapter, to take some initial steps towards understanding the dynamics at the intersection of open scholarship and copyright law, policy and practice in Kenya. The study sought to understand how the emergence of open scholarship may be affecting relationships among the stakeholders in the scholarly publishing process. The study also sought to probe the extent to which Kenya's copyright environment, in doctrinal and/or practical terms, might benefit from review so as to better facilitate open scholarship. (See Chapter 8 in this volume for another discussion of copyright dynamics, in this case in relation to the output of Egypt's independent musicians.)

2. Conceptual and practical framework

What are the conceptual, theoretical and pragmatic issues in relation to copyright and authorship in the context of Kenyan scholarship and publishing?

Conceptualising and contextualising copyright in Kenya

As stated above, the design of copyright and related rights systems has traditionally been based on two main competing theoretical perspectives: (1) the view that copyright protection acts as an incentive to promote knowledge development; and (2) the view that copyright protection can be an impediment to free and open exchange of knowledge (Cornish *et al.*, 2010). Neither of these views has been subjected to sufficient empirical research in Kenya. As a result, law- and policy-makers, as well as knowledge creators, will inevitably face problems if they seek to design and/or implement development-oriented approaches to copyright.

This study sought to partially fill the knowledge gap by examining the potential roles of copyright in relation to development-oriented open scholarship in Kenya. The main research methods used were desk research (literature review, document analysis, doctrinal analysis) and field research (surveying, interviewing and focus-grouping stakeholders), and emphasis of the data analysis was qualitative. The key doctrinal source was Kenya's Copyright Act No. 12 of 2001, which in Section 2 provides for copyright and related rights in primary works (such as literary, artistic and musical works), and in related, secondary, neighbouring or allied works (such as audio-visual works, sound recordings and broadcasts).

Who is an author?

The question of who is an author is contested in literary, legal and related scholarship (Bailey, 2000; Birnhack, 2008; Nehamas, 1986). This study focused on authorship in relation to literary works. Section 2 of Kenya's Copyright Act contains a broad definition of literary work, which includes:

- novels, stories and poetic works;
- plays, stage directions, film sceneries and broadcasting scripts;
- textbooks, treatises, histories, biographies, essays and articles;
- encyclopedias and dictionaries;
- letters, reports and memoranda;
- lectures, addresses and sermons;
- charts and tables;
- computer programs; and
- tables and compilations of data including tables and compilations of data stored and embodied in a computer or a medium used in conjunction with a computer, but does not include a written law or a judicial decision.

Further, this study focused on authors of scholarly literary works, i.e. scholarly works related to the arts, humanities, social sciences, law and the natural sciences (biological and physical sciences). Thus, authors of “popular literature” were not included. A scholarly work is typically defined as being a (critical) work that is peer-reviewed and publicly disseminated (Virginia Polytechnic Institute and State University, 2009). There are debates on disciplinary purity and interdisciplinarity: are there bright-line boundaries in the arts, humanities and social sciences (*cf.* Imbuga, 1993; Ogot and Ochieng, 1995; Ojwang, 1990; Okidi *et al.*, 2008; Okoth-Ogendo, 1990; Oloo, 2006; Outa, 2009; Oyugi *et al.*, 1988; Ruganda, 1992; Wanyande *et al.*, 2007)? Some have (problematically, in my view) placed law and legal studies under humanities and social sciences (Monahan and Walker, 2010).²

There has also been a long debate on what constitutes creative, critical, “committed” and “serious” literature on one hand, and popular literature on the other (Emenyonu *et al.*, 2006; Imbuga, 1991, 1993; Wanjala, 1982, 2007). The statutory definition of authorship has grown more problematic with the expansion of the subject matter of copyright. More particularly, problems have arisen in relation to technological developments, especially in entrepreneurial works and computer-generated works.

Establishing the identity of the author of a copyright work is important for at least four reasons. First, whether a work qualifies for protection at all depends on the status of the author. Section 23 of the Kenyan Copyright Act provides that copyright shall be conferred on every work eligible for copyright where the author, or any of the joint authors, is a citizen of, domiciled in or ordinarily resident in Kenya at the time the work is made, or is a corporate body incorporated under or in accordance with the laws of Kenya. Second, the identity of the author determines who becomes the first owner of the copyright. Section 31 of the Act provides that copyright conferred under Sections 23 and 24 of the Act vests initially in the author.

Third, for many works, the term of copyright is calculated by reference to the date of death of the author (Sect. 23(2) of the Act). For example, for literary, musical or artistic works other than photographs, the date of expiration of copyright in Kenyan law is 50 years after the end of the year in which the author dies. Fourth, in the case of many copyrighted works, the author has important moral rights. Section 32 of the Act provides for two types of moral rights accruing to the author: (1) the paternity right, which allows her/him to claim the authorship of the work; and (2) the right of integrity, which enables her/him to control the form of publication and to prevent her/him work from being distorted or mutilated.

2 For a review of the relationship, see Monahan and Walker (2010).

The foregoing is relevant to this study's focus on open scholarship. This is because, as shall be seen later in this chapter, scholarly authors' consideration of moral rights was found by this study to be generally more significant than their consideration of economic rights.

What is “scholarship”?

“Scholarship” has been conceptualised in various ways. Some have focused on the “product” of the scholarly, professional and creative work in conceptualising scholarship (Aseka, 1996; Diamond and Adam, 1993; Munene, 2012). Others have focused on the “process” of scholarship itself (Diamond, 2002; Glassick *et al.*, 1997). This study adopted a definition of scholarship as the creation, development and maintenance of the intellectual (architecture) of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases (Cohen and Atieno-Odhiambo, 1989, 2004; Halliday, 2001; Kipkorir, 2009).

In addition, the study adopted the perspective that a scholarly work is a creative work that is peer-reviewed and publicly disseminated (Virginia Polytechnic Institute and State University, 2009). Accordingly, there are at least three basic forms of scholarship: generation or discovery of new knowledge; development of new technologies, methods, materials or uses; and integration of knowledge leading to new understanding (Atieno-Odhiambo and Lonsdale, 2003).

This study also accepted the contention that scholarship involves communication. The term “scholarly communication” refers not merely to an output but also to an iterative process in which scholarship is communicated, used and developed within a community (Kling and McKim, 2000; *cf.* Imbuga, 1993; Ngugi wa Thiong'o, 1981; Njogu and Oluoch-Olunya, 2007; Ochieng, 2012; Ruganda, 1992). Scholarly publishing or communication fulfils at least three purposes: publicity, access, and trustworthiness (Kling and McKim, 1999). Björk (2007) outlines a life cycle of scholarship which involves conducting research and then communicating and applying the results across five stages: (1) fund research and research communication; (2) perform research and communicate the results; (3) publish scientific and scholarly works; (4) facilitate dissemination, retrieval and preservation; and (5) study publications and apply the knowledge.

Architecture for Kenyan scholarship

In Kenya, the architecture that directly supports, compromises or is neutral to scholarly endeavour includes universities, colleges, research institutes/centres, libraries, archives, publishers and scholarly consortia or communities.

Universities

There are two main types of universities in Kenya: public and private. There are 22 public universities established under the Universities Act of 2012. Private universities have registered exponential growth since about 2002, and with that there has been increased demand for copyrighted materials. University scholarship is mainly conducted by lecturers, professors, technical staff and postgraduate students. The largest university, the University of Nairobi, has about 5,400 staff and over 84,000 students (University of Nairobi, n.d.). It offers over 400 academic programmes in 26 faculties, schools and institutes (University of Nairobi, n.d.). Its budget for research and development (R&D) is estimated at KES500 million.³

Many universities now have a research and IP policy (Sihanya, 2013b). Polytechnics and other tertiary institutions are also engaged in research and development. Kenya has approximately six public scientific research institutions, which were established by the Science and Technology Act (Cap. 250), and one institute for the social sciences: the Kenya Institute for Public Policy Research and Analysis (KIPPRA). These research institutions have important collections in their libraries, most of which are still under copyright.

Libraries and archives

The Kenyan library system includes public libraries and institutional (both public and private) libraries. The Kenya National Library Service, established under the Kenya National Library Service Board Act (Cap. 225), manages public libraries. Another piece of legislation governing library services in Kenya is the McMillan Memorial Library Act (Cap. 217). Public, private, university and research institute libraries are increasingly playing an important, vital and unique role in scholarly research (Ouma and Sihanya, 2010).

Publishers

Publishers in Kenya are categorised into public, private and university (institutional) publishers. Private publishers include local and foreign publishers, and most of these focus on primary and secondary school publishing, because these areas provide the highest financial returns. These returns on investment have increased since 2003 when the Kenyan government strengthened the Free Primary Education (FPE) and Free Day Secondary Education (FDSE) systems. University publishers publish scholarly works targeted at university students, scholars and other information consumers seeking scholarly materials.

3 KES stands for the Kenyan Shilling, which at the time of writing in early 2013 stood at a value of approximately KES87 to US\$1.

Scholarly consortia

Scholarly consortia in Kenya include the Kenya National Academy of Sciences (KNAS), the Kenya Nonfiction and Academic Authors' Association (KENFAA), the Kenya Oral Literature Association (KOLA), the African Economic Research Consortium (AERC), the Kenya Historical Association (KHA), the African Technology Policy Studies Network (ATPS) and the Writers Association of Kenya (WAK). They focus on publishing or disseminating the works of their members and other scholars.

Professional research and publishing

Professional membership organisations such as the Law Society of Kenya (LSK), the International Commission of Jurists, Kenya Section (ICJ-Kenya Section) and the Institute of Chartered Public Secretaries of Kenya (ICPSK) also occasionally publish reports on topical themes. The objective of such publishing is not to pursue a programmatic scholarly endeavour as such. But some, for instance the University of Nairobi's Institute of Development Studies (IDS) and Society for International Development (SID, a civil-society organisation), have tried to pursue scholarly themes.

Copyright communities

Copyright communities have been evolving in Kenya since the 1970s. These include collective management organisations (CMOs, which straddle the private and voluntary sectors), the Kenya Copyright Board (KECOBO) and the Copyright Tribunal (the "Competent Authority" cited in the Copyright Act). Related to these are the courts, which rule on copyright issues arising from scholarship and publishing, particularly the High Court, the Court of Appeal and the Supreme Court.

Digitisation and copyright

Digitisation facilitates acts of copying, first when developing a digital surrogate from a physical original, and second, when putting this surrogate on the internet, which multitudes of users can then access and copy onto their own computers (Dunning, 2004; Goldstein, 2005; Lessig, 2002, 2004). Digitisation enables materials to be used in different media, to be copied at the same quality as an original, to be manipulated and distorted, and to be distributed cheaply, easily and speedily (Benkler, 2006; Lessig, 2008; Mambi, 2010, p. 197). Digitisation enables, *inter alia*, libraries to have content accessible to the public via the internet (Boyle, 1997; Litman, 2006; Samuelson, 2000). Digitisation has generated numerous important issues in IP, including matters in relation to copyright, the domain name system (DNS), software patents and business method patents (Sihanya, 2012b, 2013b).

Digital information is protected under Kenya's Copyright Act of 2001, which incorporates the provisions of the World Trade Organisation (WTO) Agreement on Trade Related Aspects of Intellectual Property Rights of 1994 (TRIPS), and the World Intellectual Property Organisation's (WIPO's) "Internet Treaties" of 1996: the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT). For any digital material to be protected under the Kenyan Copyright Act, it should fall within the definition of what is copyrightable subject matter. Section 22 of the Act lists what is copyrightable as literary work, musical work, artistic work, audio-visual work, sound recordings and broadcasts.

Open development

The emerging notion of open development refers to development systems in which people are free, or even empowered, to access networked development systems and to participate, collaborate and share within those systems. Aspects of open development include open government (Sihanya, 2006, 2007–8) (which is comparable to e-government and e-governance), open communications networks, open access to content and open-sourced research and product development as commons-based peer-production. In the context of OA and open scholarship, the challenge is balancing the competing interests of open development and the creative and innovation industries that benefit from appropriate incentives. (See Chapters 1 and 4 of this volume for more on the concept of open development.)

Open access (OA) and open scholarship

OA refers to works that are created with no expectation of direct monetary return, and which are made available at no cost to the reader on the public internet for purposes of education and research (Open Society Institute and the Soros Foundations Network, 2011). The Budapest Open Access Initiative stated that OA would permit users to read, download, copy, distribute, print, search or link to the full texts of works (Open Society Institute and the Soros Foundations Network, 2011).⁴ Readers would also be able to trawl the works for indexing, pass them on as data to software, or use them for any other lawful purpose, without financial, legal or technical barriers other than those inseparable from gaining access to the internet itself. OA does not apply to materials for which the authors expect to generate direct revenue.

4 See other definitions at InTech (n.d.).

Jain (2012) outlines seven main characteristics of OA material:

1. It is free of charge.
2. It is free of (most or all) copyright and licensing restrictions.
3. The material is available online or on the internet.
4. The material is full text.
5. The material can be accessed by anyone and in any place subject to connectivity.
6. The material can be freely used by anyone who has access.
7. The materials can be in various formats, from texts and data to software, audio, video and multimedia, scholarly articles and their preprints. The concept of open scholarship has developed out of the concept of OA. It refers to OA practices as part of the scholarly publishing process.

As discussed above, new technologies and new means of research communication and dissemination are changing traditional publishing and enabling an increasing range of non-traditional forms of communication, such as via e-journals, lists, blogs and wikis (Bourne *et al.*, 2011). The development of OA and open scholarship principles has also resulted in the emergence of alternative scholarly publishing models. Under open scholarship, three main alternative publishing models have emerged: subscription publishing, OA publishing and OA self-archiving. Subscription or toll-access publishing refers primarily to academic journal publishing. It includes a publishing business model that imposes reader access charges and user restrictions (Murray, 2009, 2011; Murray and Moore, 2006). OA publishing refers primarily to journal publishing where access is free of charge to readers and the authors. The employing or funding organisations pay for publication. Use restrictions are minimal, as no access toll is imposed (EC, 2008; Houghton and Oppenheim, 2010). OA self-archiving refers to the situation where academic authors deposit their works in online OA repositories, making the works freely available to anyone with internet access.

3. The research

This study commenced in 2011 and was concluded in 2013. Its desk research consisted of: (1) reviewing and analysing literature on the key concepts under study; and (2) analysing existing legal instruments and policies in Kenya in relation to copyright. The field research consisted of surveys, interviews and focus group discussions, all guided by similar sets of questions. The focus of this field work was on gathering data from selected respondents on the emerging concepts of open scholarship and alternative publishing in Kenya in relation to the country's

prevailing copyright environment. Respondents were drawn from the following groups of stakeholders:

- authors of scholarly works, including scholarly experts on copyright, literature, political science, history and sociology;
- publishers;
- information managers, including librarians, digital archivists, managers of digital repositories and conventional archivists;
- copyright administrators and regulators, including representatives of the Kenya Copyright Board (KECOBO), the State Law Office and collective management organisations (CMOs);
- information consumers, including general readers and representatives of consumer organisations and civil society organisations (CSOs) working on education, access to information and production of information; and
- research supporters and funders.

The research team encountered some challenges in carrying out the field research. Many of the respondents were unavailable for full face-to-face interviews, for various reasons. This forced the research team to leave survey questionnaires in the interviewees' offices and collect the completed questionnaires later. This had the potential to affect the quality of data received. In the end, it was decided that the most useful data came from four of the six stakeholder groups targeted (see Section 5 below).

4. Desk research findings

This section provides the findings from the literature review and analysis of legal instruments.

Development of copyright in Kenya and Africa

Sections 26–29 of the Kenya Copyright Act of 2001 define copyright as a set of exclusive rights granted to the author or creator of an original work. It is a bundle of moral and economic rights that subsist in the category of works outlined under Section 22 of the Kenya Copyright Act of 2001. Copyright includes the right to copy, distribute and adapt the work (Goldstein and Reese, 2010; Ouma and Sihanya, 2010; Sihanya, 2010).

Kenya's initial engagement with the copyright law was, as with many African countries, via its colonial experience under Britain. In Kenya, Uganda, Tanzania, Ghana, Nigeria, Zambia and South Africa, and in Anglophone Africa generally, copyright law began with the application of all or some of the UK Copyright Acts

of 1842, 1911 and 1956. These statutes were applied together with the (English) common law of copyright. This was largely courtesy of the reception clauses of the respective countries (Seidman, 1969; Harvey, 1975). At transnational level, the Berne Convention on Literary and Artistic Works of 1886 and the Universal Copyright Convention (UCC) of 1952 were negotiated, signed and ratified on Kenya's behalf by British colonial authorities. After Kenya's independence in 1963, the treaties were applied through the doctrine of state succession (Sihanya, 2003, 2010). A number of Agreements on Friendship, Commerce and Navigation (FCN) also covered or laid a framework for copyright transactions and regulation.

The individual constitutions of most African countries tend not to deal with copyright matters directly. Significantly, however, Articles 11(2)(c), 40(5) and 69(1)(c) of the Kenyan Constitution of 2010 recognise IP generally by placing the duty of promoting the IP rights of the people of Kenya on the state. Specifically, Article 11(2) provides that the state shall promote all forms of national and cultural expressions (usually the domain of copyright and related laws), including folklore and traditional knowledge (TK). (See Chapter 6 of this volume for discussion of the policy framework for TK in Kenya.)

Copyright and scholarship in Kenya

The concept of open scholarship is not expressly provided for under the Kenyan Copyright Act of 2001. However, the Act has provisions which have the potential to promote authorship and scholarship, while at the same time seeking to balance or harmonise the interests of the various stakeholders in the copyright industry. The Act grants moral and economic rights to an author. Significantly for the concept of open scholarship, the Act of 2001 imposes several limitations on the author's rights in the interests of public access and usage. These limitations, in the Act, on the economic rights of an author are closely related to transnational standards for "fair practice" or "fair dealing", which will now be discussed.

Fair dealing

The Kenyan Copyright Act's provision for "fair dealing" is closely related to the notion of "fair practice" found under article 10 of the Berne Convention (Goldstein, 2001; Lewinski, 2008). The methodology and approach for fair dealing are not to be confused with the different, though in some respects similar in orientation, "fair use" doctrine in American copyright law (Goldstein, 2005; Goldstein and Reese, 2010). The fair dealing provision in Section 26(1)(a) of Kenya's Copyright Act of 2001 allows a person to deal with the copyrighted work of another for purposes of scientific research, private use, criticism or review and reporting. The

conditions for such use are that it must constitute fair dealing and that the author must be acknowledged (Bainbridge, 2009; Cornish *et al.*, 2010; Goldstein and Reese, 2010; Ouma and Sihanya, 2010; Sihanya, 2010).

As McGreal (2004) notes, fair use in the US and fair dealing in the Commonwealth countries are the traditional exemptions to copyright allowed to the public, and specifically to educational institutions, for research and other uses such as parody or quoting (McGreal, 2004). There have been some notable Kenyan cases concerning application of the fair dealing provision in the Copyright Act: for example, the case of *Margaret Ogola & 3 Others v David Aduda and Another* (unreported). Margaret Ogola, a medical practitioner, wrote a novel entitled *The River and the Source*. It was, at one time, a literature set book for secondary school students in Kenya.⁵ The defendant authored a students' guidebook to the novel and used, *inter alia*, the picture of a child from the cover of the original novel. Ogola and her publisher sued Aduda and his publisher for copyright infringement. In the proceedings for a temporary injunction and interlocutory orders, the defendants pleaded fair dealing on the grounds of criticism and review. The court declined to grant an interlocutory injunction, arguing that there were triable facts (Ouma and Sihanya, 2010).

School use

Section 26(1)(d) of the Copyright Act states that the author will not have a right to control the inclusion in a collection of literary or musical works of “not more than two short passages” from the work in question if the collection is designed for use in a Kenyan school or university and includes an acknowledgement of the title and authorship of the work. There are, however, challenges in operationalising such provisions (Ouma and Sihanya, 2010). It is not clear what constitutes “two short passages”. Could any number of sentences, paragraphs or chapters qualify? What if the passages constitute the essential elements (the “pith and marrow”) of the work – for instance, the refrain or chorus of a poem or song?

Several cases have emerged where learners were found to have infringed the rights of an author in using her work in a school. For example, in *Anne Nang'unda Kukali v Mary A Ogola & Another* ([2010] eKLR), Mary Ogola (first Respondent) had submitted a research proposal to the University of Nairobi (second Respondent) for the degree of Master of Arts in Project Planning and Management. The Applicant had allegedly presented similar material to Maseno University for the degree of Master of Education. The Applicant argued that at the time of the presentation, Ogola knew that the work was a copy of the Applicant's work, which Ogola obtained through a friend of the Applicant. The court, in granting an injunction, stated that

5 It is a set book once again from 2013.

the Applicant had shown that Ogola had used the Applicant's original work. Hence, should the Respondent's degree course be approved, the Applicant was likely to suffer substantial loss due to violation of her "intellectual rights". Problematically, there was no rigorous analysis in this case of originality and the different standards associated with plagiarism, on the one hand, and copyright infringement (which may be a civil wrong or criminal offence) on the other.

Instructional broadcasts

Section 26(1)(e) of the Copyright Act of states that the author will not have a right to control the broadcasting of a work if the broadcast is intended to be used for purposes of systematic instructional activities. This provision allows broadcasting of educational and scholarly materials where they are used for educational instruction. The clause may have the effect of supporting the Kenya Institute of Curriculum Development's (KICD's) broadcasts to schools. But what of virtual university systems, and open, distance and electronic learning (ODEL) in general? There is at present no clarity on these matters in Kenya.

Reading or recitation of an extract

Section 26(1)(g) of the Copyright Act requires that the author should not control the reading or recitation in public or in a broadcast by one person of any reasonable extract from a published literary work if accompanied by a sufficient acknowledgement of the author. Thus, a teacher, lecturer, student or pupil reading a publication to the class may not be infringing the copyright. But it must be relevant to the class and the extract must be "reasonable".

Compulsory licensing

Section 26(1)(h) of the Act gives the government power to compulsorily acquire a copyright or produce a copyrighted work where the reproduction is in the public interest and no revenue is derived from the reproduction.⁶ It provides that the author does not have a right to control the reproduction of a work by or under the direction or control of the government. Moreover, the author may not control reproduction by such public libraries, non-commercial documentation centres and scientific institutions as may be prescribed in specified contexts. This provision is particularly relevant to where a work is important in an educational setting and the author is controlling or limiting reproduction to the detriment of the public.

⁶ Cf. Records Disposal Act (Cap. 14), Public Archives and Documentation Service Act (Cap. 19).

Assignments and licensing of scholarly works

Kenya's Copyright Act confers on the first owner of copyright certain exclusive economic rights over the exploitation of the work (Sect. 26 of the Act); unless there is evidence that the work should belong to the employer or commissioner (Sect. 31 of the Act). Only a few scholars have the financial ability, economic acumen or the willingness to undertake the process of scholarly publication and communication, i.e. printing and selling their own books and articles. Authors of books have traditionally found it advantageous in terms of the balance between the financial reward and the degree of risk involved to approach well-established publishers who then arrange for the printing, marketing and sale of the books or the story (*cf.* Chakava, 1996). The publisher is also better placed to monitor and take legal action against persons infringing the copyright.

Section 33 of the Kenya Copyright Act gives scholars other ways of exploiting their works, principally through assignment and licensing. Section 33(1) provides that copyright shall be transmissible by assignment, by licence, by testamentary disposition or by operation of law as movable property.

Copyright and open scholarship

The emergence of open scholarship and alternative publishing has upset the traditional relationship between the following stakeholders in the scholarship process: authors, peer reviewers or referees, research funders, publishers and libraries and archives as well as other repositories. The traditional interests and models of economic and non-economic rewards accruing to these parties have changed and thereby significantly altered the nature and character of transactions among them. Consequently, this has changed established views on the traditional doctrine of copyright, which shape the relationships among these parties.

Challenges to access to scholarly information

While it is true that there are immense advantages to be found via increasing access to knowledge in development, there are at least two counter-arguments and situations that negate free access to knowledge or information. First, there are arguments on the cost of information. The cost of published research in books and some journals and other media has been increasing, making it harder for individual readers, libraries and universities or colleges to access the information. Second, the copyright regime in place largely constrains free access to books and some journals.

In addition to the use of licences, numerous large commercial entities, especially publishers, have promoted legislation that creates limitations to the access and use of copyrighted materials. These include, for example, the US Digital

Millennium Copyright Act of 1998, the US Sonny Bono Copyright Term Extension Act (CTEA) of 1998 and the Uniform Computer Information Transactions Act (UCITA). There are also other laws in various jurisdictions that are traditional sources of quality research like the US, UK and Australia (Goldstein, 2001; Goldstein and Reese, 2010). The regime that may have similar effects in Kenya includes the Official Secrets Act (Cap. 187); Penal Code (Cap. 63); Public Officer Ethics Act of 2003; and the Anti-Corruption and Economic Crimes Act of 2003.

The Zwolle principles on scholarship and copyright management

The Zwolle group consists of academic authors, publishers and copyright experts. The group has developed seven “principles” aimed at “balancing stakeholder interests in scholarship-friendly copyright practices” (SURF Foundation, 2002). The principles are aimed at assisting stakeholders – including authors, publishers, librarians, universities and the public – to achieve maximum access to scholarship without compromising quality or academic freedom and without denying aspects of costs and rewards involved. The seven principles are, as quoted *in extenso* from the SURF Foundation’s website (SURF Foundation, n.d.):

- First, achievement of this objective requires the optimal management of copyright in scholarly works to secure clear allocation of rights that balance the interests of all stakeholders.
- Second, optimal management may be achieved through thoughtful development and implementation of policies, contracts and other tools, as well as processes and educational programs, (collectively “Copyright Management”) that articulate the allocation of rights and responsibilities with respect to scholarly works.
- Third, appropriate Copyright Management and the interests of various stakeholders will vary according to numerous factors, including the nature of the work; for example, computer programs, journal articles, databases and multimedia instructional works may require different treatment.
- Fourth, in the development of Copyright Management, the primary focus should be on the allocation to various stakeholders of specific rights.
- Fifth, Copyright Management should strive to respect the interests of all stakeholders involved in the use and management of scholarly works; those interests may at times diverge, but will in many cases coincide.
- Sixth, all stakeholders in the management of copyright in scholarly works have an interest in attaining the highest standards of quality, maximising current and future access and ensuring preservation; stakeholders should work together on an international basis to best achieve these common goals and to develop a mutually supportive community of interest.

- Seventh, all stakeholders should actively promote an understanding of the important implications of Copyright Management of scholarly works and encourage engagement with the development and implementation of Copyright Management tools to achieve the overarching objectives (SURF Foundation, n.d.).

The proposed amendments (in fact supersession) of the Kenyan Copyright Act currently being considered by the relevant policy-makers will thus need to secure balance in two contexts so as to help realise an appropriate digital copyright regime (Ouma and Sihanya, 2010; Sihanya, 2012a, 2012b, 2013; *cf.* Mwakisyala, 2000). There is need for balance between protection and access, and for balance between technological protection measures (TPMs), digital rights management (DRM) systems or rights management information (RMI), on the one hand, and market principles (or the price mechanism), social norms, copyright and related law, on the other (Sihanya, 2013b).

5. Field research findings

This report gives the findings based on the responses from four of the stakeholder groups surveyed: (1) authors of scholarly works, (2) publishers, (3) information managers and (4) information consumers. A separate questionnaire was prepared for each category surveyed. The questionnaires were designed to gather data on:

- motivation for publication of scholarly works by authors;
- rights in the scholarly work that the stakeholders, especially authors, consider most important;
- how the authors use scholarly works after publication;
- how the copyright policies of publishers affect authors;
- whether the stakeholders are familiar with the concepts of open scholarship and alternative publishing; and
- how open scholarship is affecting the relationships among authors and various stakeholders.

The field research generated several main findings, as detailed in the subsections which follow.

Motivation for authorship

The 20 authors surveyed were based at public and private universities. Most of these authors have published books, journal articles, articles in peer-reviewed magazines, book chapters, course materials and related scholarly materials. The

questionnaire and focus group data found that the main motivation for most of the authors to publish scholarly works is attribution of the publication to their name. These authors thus consider moral rights to be of greater importance in scholarly publishing than economic rights. Economic rights – including royalties from publishers, fees from assignments and transfers of copyright – are considered by most authors to be secondary. The authors surveyed value recognition, via publication of their work, more than any aspect of monetary compensation that might result.

The primary motivating factors among authors for publishing scholarly works were found to be the following:

- attribution of the publication to the author's name (17 out of 20 authors cited this as a primary motivating factor);
- publishing in the spirit of promotion of scholarship and scholarly activities;
- promotion of knowledge;
- dissemination of information in their areas of expertise;
- a responsibility to the scholarly world and society; and
- advancement in the teaching profession, for example, in the hierarchy of lecturer, senior lecturer, associate professor and professor (4 out of 20 authors).

Secondary motivating factors for authors in publishing scholarly works were found to be as follows:

- royalties from publishers (17 out of 20 authors cited this as a secondary motivating factor); and
- fees from the transfer and assignment of copyright.

This position contrasted sharply with the position of some of the publishers surveyed, who consider the economic value of a scholarly publication to be more important.

Some of the authors stated that they have adopted the following strategies of authorship in the context of open scholarship:

- publishing on blogs;
- publishing on personal websites;
- keeping online journals; and
- providing their work to online OA libraries.

Some authors surveyed indicated that the movement towards open scholarship has yet to affect their relationship with other stakeholders like publishers and information managers. This is partly because the concept is still new in Kenya and has yet to be fully embraced. Some authors surveyed blame information

managers for plagiarism and copyright infringement, especially where such information managers employ digital storage mechanisms. Information managers, on the other hand, stated that some authors and publishers have embraced the concept of open scholarship. Some information managers even stated that they have conducted open forums with authors on issues of free access to the author's works.

Use of scholarly works

The field research found that the authors surveyed seek a variety of uses for their scholarly works, including using such works as publications intended for other researchers; using the works as printed or electronic course materials for teaching; and using the works for general readership or scholarship. In using the scholarly works that they author in the above ways, the authors stated that they do so without asking for the permission of the publishers as to whether or not they have the right to re-use the articles in such a manner.

Some authors are of the opinion that most journals generally allow one to use the work published for teaching purposes. (These findings are consistent with recent developments in universities and colleges in Kenya, which have to cope with exponential growth in student populations without concomitant investment in the development or acquisition of the relevant literature.)

Copyright policies of publishers

It was found that not all authors pay attention to the copyright policies or practices of the publishers that publish their scholarly works. At the same time, it was found that, for some authors, the copyright policies or practices of publishers tend not to influence their decisions in selecting a publisher. There were a number of reasons given to the research team as to why some authors do not pay attention to the copyright policies or practices of publishers:

- Some of the authors surveyed lack adequate knowledge of the rights of the publisher and their own rights in relation to the published work.
- Some authors assume that the publisher has a duty to protect rights.
- Some authors are of the opinion that the agreements authors sign with publishers do not contain any clause on copyright. (Our research team experienced difficulties in ascertaining the veracity of this statement, because most publishers were uncooperative and thus we could not access the standard-form agreements of the publishers.)
- Some authors were of the opinion that it sometimes takes too long to deal with publishers and the authors therefore choose to fast-track the

publishing process by not raising too many questions concerning copyright and related issues.

- Some authors stated that their choice of a particular publisher is determined by the publisher's credibility in terms of reputation and publishing and distribution efficiency.

Thus, the key author interest expressed is in getting scholarly works published, and only secondarily in getting the necessary rewards in the form of royalties, grants or related payment (*cf.* Wasamba and Sihanya, 2012). The authors interviewed who said they do pay attention to the copyright policies or practices of publishers (12 out of 20 authors) stated that they do so because they know the agreement they sign with the publishers contains such policies and that such policies determine issues of royalty fee payments and certain distribution matters.

The concept of open scholarship

The field research also found that all the respondents are generally familiar with the concepts of open scholarship and alternative scholarly publishing. Some information managers at libraries based in institutions of learning shared examples with the research team of how they have developed programmes for accessing and sharing information. The information shared mainly concerns teaching materials and important course content. These materials are provided by lecturers, most of them the authors of the materials. Researchers using such libraries are thus able to access scholarly materials on the databases. Nine out of the 20 authors interviewed informed the research team that they have embraced online OA publishing of their articles in order for the articles to be accessed by more people.

However, some respondents were skeptical regarding the implications of open scholarship in the long run in Kenya. For example, some authors stated that they do not believe in concepts such as open scholarship, open access to information or open development. Some publishers shared this position. One respondent, a university professor, said nothing should be done “free”. Some interviewees were of the opinion that the open scholarship concept is similar to killing authorship, and that creating free access might lead to misuse of scholarly works. Some authors stated that open scholarship is impractical in developing countries such as Kenya, since authors will have no rewards for their works. They stated that in developed countries open scholarship receives funding from donors, but this is not the case in developing countries.

Some respondents questioned why our research project was concentrating on the issue of online open scholarship whereas, in their view, there are other issues that remain unaddressed regarding copyright. They were of the opinion

that the issue of authors benefiting from their works remains unresolved, and highlighted the issue of contracts between authors and publishers. One respondent (an author) was adamant in refusing to discuss open scholarship and instead dwelt on the copyright issues in traditional hard-copy publishing. Another author expressed his disappointment as his interview with a member of our research team came to a close. He said he had expected the interview to focus on the problems he is experiencing with his works in traditional hard-copy form.

However, while several authors surveyed have a sceptical view of the open scholarship concept, these authors nevertheless stated that some of their works have been made available on the internet and are available to the public on an OA basis. Other authors were strongly receptive to the idea of open scholarship, stating that it will promote scholarly activities. For example, one respondent, a university professor, stated:

I do not care whether it is [an] open access journal or restricted journal. The biggest thing is whether the scholarly work is published. I do not believe that access to academic journals should be restricted. I give my scholarly works to my students freely. Ninety-nine per cent of my journals [articles] have been sent to open access journals (interviewee, 2012).

The field research found that information managers and information consumers were the categories of respondents most supportive of the open scholarship principle. Some librarians (i.e. information managers) stated that open scholarship has had a great impact in the information management business. They stated that they can now stock more materials and make them accessible to researchers and other information consumers. Some were of the opinion that online libraries have revolutionised access to information, and that very soon all libraries will go digital.

The information managers were of the view that other stakeholders, such as authors and publishers, will still benefit from digital libraries. For example, one suggested that DRM tools will control access to, and author and publisher benefit from, online publishing of content. In some DRM-controlled systems, only abstracts are free of charge and one pays for full access to works, either through paid subscriptions or one-off payments for each work accessed. Some information consumers stated that open scholarship has enhanced their consumption of academic materials, as it has become easier to access a wide range of scholarly materials from online databases. (Kenyan universities are increasingly subscribing to online databases.)

Some of the authors stated that in 10 years the idea of alternative scholarly publishing will no longer be “alternative” but rather traditional. To them, the idea of alternative publishing is taking over from the traditional publishing model. However, the authors still maintain that printed books will not disappear.

Copyright laws, policies and practices

Most of the authors interviewed were found to have limited information on Kenyan copyright laws. This was also found to be true of information managers and information consumers. Meanwhile, most publishers interviewed were reluctant to discuss copyright issues. Interviewees who had some knowledge of copyright law in Kenya were of the opinion that these laws cannot support and sustain open scholarship in Kenya. The main reasons advanced for this are the poor implementation mechanisms in Kenya to protect copyright, and the high level of ignorance regarding the laws, policies and practices.

Authors interviewed stated that the copyright laws cater for the interests of publishing stakeholders, and that publishers and information managers blatantly disregard copyright policies. The authors said weak implementation mechanisms subject them to exploitation. Information managers, on the other hand, were of the opinion that the current copyright law and policies cannot sustain open scholarship because they are too rigid and only encourage controlled and limited access to scholarly materials.

Most stakeholders identified implementation as the main copyright problem. They proposed that protection of the rights and interests of authors and other stakeholders will be more effective if there is greater education on, and sensitisation to, the realities of copyright laws, policies and practices in Kenya. Some proposed that more powers be given to copyright enforcement agencies, and some argued for stronger punishment for infringement.

6. Conclusions

The field research thus found a mixture of willingness and reticence among stakeholders in Kenyan scholarly publishing towards the idea of strongly embracing open scholarship and alternative publishing. The general view is that economic benefits might not be well protected under open scholarship. Thus, while alternative publishing as a concept is gaining in popularity in Kenya, the full exploitation of the model is held back by uncertainty regarding incentive or reward mechanisms, particularly economic rewards. Authors surveyed generally agree that open scholarship gives more voice and prominence to scholarly works, but that no (or limited) other benefits accrue (see also Wasamba and Sihanya, 2012).

Two broad recommendations emerge. First, the Copyright Act of 2001 and related laws should be reviewed, reformed and redesigned to clearly provide for and establish an explicit balance between an author's or scholar's rights, on the one hand, and the reader's or user's rights of access on the other

hand. Reforms are needed to help ensure that copyright practices benefit authors and users under both the traditional *and* open, alternative scholarship and publishing models. The Copyright Act thus needs to be fundamentally reviewed (Ouma and Sihanya, 2010; Sihanya, 2009b, 2010). Some of the relevant proposals have been made to KECOBO and the State Law Office. These include clarifying owner's rights; and recognising limitations and exceptions to enhance access through Braille, audio or digital texts (Sihanya, 2013b). A national copyright policy should be developed to underpin the reform of the Act.

Second, there is a need to strengthen copyright administration and procedures. The operative regulations and administrative procedures should be reviewed to facilitate authors' and scholars' enjoyment of their rights (and compliance with their obligations) as well as users' enjoyment of their rights (and compliance with their obligations).

The following specific recommendations emerge, all with policy implications requiring appropriate intervention in order to promote copyright's progressive role in open scholarship and alternative publishing in Kenya:

1. Strengthen Kenya's architecture on copyright policy and administration regarding naming of authors, their recognition and their acknowledgement with regard to every work. There is a need to develop national and institutional policies on copyright, including on the character as well as on the limitations and exceptions on moral rights. These will guide the implementation and administration of the law, especially in the context of education, training, research and scholarship.
2. Ensure rewards for authors in Kenya for the use of their works in digital format, including through the internet, in ODEL and in open scholarship. The possible rewards include recognition, prizes, royalties, subsidies and related incentives.
3. Train authors and scholars in Kenya on the individual and social benefits of open scholarship.
4. Educate members of the public on copyright and related IP issues.
5. Create better mechanisms for the regulation of copyright and related issues. There is a need to strengthen the copyright licensing regime, as well as judicial and quasi-judicial mechanisms like the Copyright Tribunal (the "Competent Authority").
6. The penalty for infringing copyright laws should be revised and made more appropriate. The penalty is quite light and offenders will keep on infringing and paying whatever fine they are charged. In

addition, the Copyright Act and related laws should also be amended to facilitate incentives and systems that secure compliance. The possible incentives include financial and other rewards for those who comply with copyright, as well as “naming and shaming”, or financial penalties, for those who do not comply.

7. Ensure financial and non-financial incentives to authors and scholars in order to increase the quality and volume of materials that can be made accessible via traditional and open scholarship in Kenya.

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