

Title of the Satellite Meeting: *Grey Literature: Scholarly Communication in a Digital World*

Date: August 23, 2019

Location: National Library of Greece, Greece

Research Engagement: Belt and Road Initiative

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Abstract:

Belt and Road is an economic initiative proposed by the Chinese President Xi Jinping in 2013, which impacts many countries in the Belt and Road regions. At the University of Hong Kong, China and Belt and Road Economies is a recurrent topic under the designated strategically oriented research themes. This is an ideal topic to gain deeper insights into the shifting contexts in scholarly communication as well as recent library strategies to engage at a deeper level in supporting a strategic research theme. In today's digital environment, facilitating access to the full range of local, external, virtual and collective resources organized around researchers' workflow is not an option but a mandate. Grey literature presents an important dimension beyond the traditional scholarly resources in supporting this global interdisciplinary research theme. This paper will present the strategies of the HKU Libraries in providing the wide spectrum of scholarship in two research initiatives to address the broadening scope of contents for deeper research connections and engagement. An "inside-out" approach in addressing the widening scope of research collections and output has extended the spectrum of both academic and grey literature to provide stronger evidence and perspectives for any investigation and analysis.

Keywords: Research engagement, research support, grey literature, inside-out library

Introduction

One Belt One Road (OBOR) is the buzz term that refers to an economic initiative, proposed by the Chinese President Xi Jinping in 2013, which impacts many countries in the Belt and Road regions. This is an ideal topic to gain deeper insights into the shifting contexts in research and scholarly communication as well as recent library strategies to engage in the research process at a deeper level beyond what the typical academic library collections offer.

In today's digital environment, facilitating access to the full range of local, external, virtual and collective resources organized around researchers' workflow is not an option but a mandate. Grey literature adds an important dimension beyond the traditional scholarly resources and constitutes a dynamic component of network resources.

At the University of Hong Kong (HKU), China and Belt and Road Economies is a Strategically Oriented Research Theme topic grouped under Intelligence, Data, E-Commerce & Automation (University of Hong Kong, n.d.b). Here is an opportunity for the Libraries to develop knowledge resource support surrounding the theme of Belt and Road Initiative. It is expected that many research proposals and funded projects will grow out of this theme, with faculty positions created since 2016 across the faculties of Architecture, Arts, Education and Social Science. Since this topic is impactful in terms of raising research funds and encompasses a range of subject disciplines, it was proposed as a strategic priority of the Libraries in 2017.

In response to the shifting research contexts in today's digital network environment and online social networked space where discovery often occurs outside of the library, the HKU libraries adopt an "inside-out" approach to develop more diverse and global collections and to showcase distinctive institution assets (Dempsey, 2017). This is in line with the university's mission to achieve major impact from the strategic research areas by producing high-impact case studies, policy papers and reports for policy-makers. The broad challenge for librarians is to seek diverse open sources of scholarship, which include many genres of grey literature, to add value and perspectives beyond licensed contents. An "inside-out" approach in addressing the widening scope of research collections and output has extended the spectrum of both academic and grey literature to provide stronger evidence and perspectives for any investigation and analysis.

The purpose of this paper is to scan the scholarly research landscape and understand the shifting research context from the perspectives of academic researchers. In response to the institutional research mission and expected outcomes in alignment with the university's Strategically Oriented Research Themes, an "inside-out" approach is adopted to fulfill broader and inclusive forms of knowledge beyond what is discoverable and accessible from the Library alone, but most importantly to showcase HKU's research output to the outside world. This paper will present a couple of funded research initiatives as case studies to highlight the Libraries' strategic role of engagement in the process of scholarly knowledge discovery and creation.

The Research Landscape: A Shift to Inside-Out

An "inside-out" approach in addressing the widening scope of research collections and output has extended the spectrum of both academic and grey literature to provide stronger evidence and perspectives for deeper connections. In facilitating access to a broader range of local, external and collaborative resources organized around the research process, the focus is on high priority needs and collections that embrace the digital networked environment and open scholarship. The inside-out approach is essentially driven by the current research ecosystem, amidst changes in the nature of research in a digital environment and the shift toward an open model of scholarly communication, publishing and social media technologies.

Today's research landscape is about engaging in partnership with society from knowledge discovery to creation through to knowledge transfer. Bosman & Kramer's Circle of Researcher's Workflow shows the way information or knowledge is created shared and processed in academia, from discovery, analysis, writing to the publication, outreach and

assessment (Bosman & Kramer, 2015). The illustration of this process suggests a broader implication in the resources and librarian engagement researchers might rely on. In an open access environment, the research space, being transformed, is not solely for researchers, but where all stakeholders (funders, publishers, research institutions, public, private, commercial, and governments) meet to access modern technologies to support the research flow of activities (Hook, Calvert & Hahnel, 2019).

In the IFLA Trend Report 2018 Update, Baig observes that where researchers engage in collaborative exchange via community networks in an age of improved internet connectivity, libraries have a role to play as the “gateways”, that is “ a source of locally-relevant material and as a physical place to carry out discussions and training” (IFLA, 2018). Furthermore, it would be beneficial to promote the use of public domain materials, as the contents from these virtual domains form an important part, yet often neglected resources, that deserve wider sharing and re-use under the Creative Commons license (IFLA, 2018). The Libraries’ role to scrutinize, decipher which resources to select and promote through the library systems and subject websites remain even more critical than before with question of distrust in the trustworthiness of contents (IFLA, 2018).

Other factors at play include the widening scope of research collections and the worldwide movement toward open scholarship. Research output is expanding, especially from Asia, and becoming more international, diverse and interdisciplinary. As Lorcan Dempsey points out, the scholarly record of final outputs is not limited to journals and books, but in a variety of other outputs in remote digital and shared resources, expanding range of media, open data, etc. (Dempsey, Malpas & Lavoie, 2014). Since no library has it all and more information is available outside the library than within the networked digital environment, the shift from outside-in to inside-out is inevitable. Dempsey describes the knowledge environment “shift of focus from locally owned or managed resources to a shared or collective arrangement at the network level” that involves greater levels of coordination above the institution, and a closer alignment with the research goals of the university (Dempsey, 2017). Within this context, Dempsey infers the growing role of the library in assisting with the creation and use of institutionally produced materials (Dempsey, 2017). In an article on the transformation of academic library collecting, Malpas envisaged a more evidence-based approach to inclusive global collections and specialized research guides (Malpas & Proffitt, 2017). Furthermore, evidence suggests that researchers contribute to the role of collecting with relevant materials acquired from research sites and promote the sharing of contents on academic websites and scholarly networks (Cooper & Rieger, 2018).

In view of the shift toward open scholarship and widening scope of global resources, at the institutional and funder’s level, researchers are expected to develop successful case with societal impact through knowledge transfer partnerships. The Libraries’ role is to facilitate researchers’ needs serving the full cycle of this process through an ecosystem of information that enables collaboration, diverse discovery, sharing of ideas, to innovation and knowledge creation, showcase the output in areas of excellence to the world. The university’s mission to showcase research output and impact in areas of excellence to the world is achieved through the HKU institutional repository, Scholars Hub, which serves to promote an open culture and compliance in managing research output and data (University of Hong Kong, n.d.b).

Research Engagement in Two Project Cases

The Libraries' engagement in the research cycle to enable discovery of diverse genres of knowledge and to showcase knowledge creation to the world is demonstrated in the support of research projects and activities aligned with the university's Strategic Oriented Research Theme on China and Belt and Road Economies. The Belt Road concept, which has been a strategic theme driving the social, urban and economic developments, promotes infrastructural and developmental connectivity in multilateral fronts and encompasses wide geographical scope in a range of subject disciplines. The intended research outcome is to develop new insights and analytics from empirical investigations through evidence, direct observations or experiences to provide guidance on cross-border and overseas financial investment and development activities and to bridge the governments of Hong Kong, China and the Belt Road countries for better social and economic integration.

Hong Kong has a key role to play in the innovation and growth of the financial development of the Greater Bay Area. The Theme-based Research Scheme project entitled "Enhancing Hong Kong's Future as a Leading International Financial Centre", led by HKU Faculty of Business and Economics aims to develop current research in high-impact business cases, policy reports and recommendations for policy-makers to demonstrate Hong Kong's strategic position as a regional and International Business Centre. This project was awarded a sizable funding under the Theme-based Research Scheme. Resulting knowledge activities are aimed to connect academic faculties to the corporations and industry through extending outreach to the community and partnering through organization of public lectures, seminars and/ or academic conferences, and engaging in translational policy research that raises visibility and performance of the Faculty's work. A number of the conference papers and knowledge exchange activities are showcased in HKU Scholars Hub (University of Hong Kong, n.d.a).

The Belt Road Initiative has also been a major research theme for HKU Faculty of Architecture since 2016/17. The series of projects, established in May 2016, "Planning Livable Cities in the OBOR Region: Hong Kong and Dhaka," obtained Recurrent Funding for Knowledge Transfer in 2016 through to 2019. Led by The One Belt One Road Urban Observatory of the Centre of Urban Studies and Urban Planning under HKU Faculty of Architecture, the objectives include modelling and predicting connectivity improvements in the Eurasian urban network and advising city governments on smart land policy on the cities, city systems and peoples with respect to the Belt and Road Initiative (Faculty of Architecture, HKU, 2016 Mar-Aug). These projects were conducted in conjunction with Trade Development Council (TDC) research projects on a number of Belt Road countries. Sources of collaborative funding include the World Bank and the Hong Kong Trade Development Council, due to Hong Kong's role as a center for OBOR professional service. The goal of the faculty is to raise research performance and showcase research output and impact case studies.

The first step in research engagement is to provide fundamental resources as underlying support to enhance students' understanding of the One Belt One Road theme from an historical and developmental context. For deeper connection beyond the fundamental level to provide historical context, HKU adopts an inside-out or network level approach to broaden knowledge resource beyond the Libraries' owned and subscribed resources. The library follows the research framework of the project launched under the One Belt One Road Urban Observatory to enable discovery of specialized resources targeted at the research level to support specific projects, such as urban policy and governance, and urban management of the regions under study. The disciplinary scope encompasses areas of inquiries across the Belt

Road regions, from Humanities and Social Science subjects such as cross cultural studies, urban planning to sustainability and innovation in science, technology and healthcare fields.

The Library Resources Fund provided top-up fund allocations for initiatives on the Belt and Road theme to strengthen collections related to the countries concerned in a range of disciplines and welcomed faculty members and the Silk Road Assistant Professors on the Belt and Road Collection Initiative to make relevant resource recommendations. Researchers contribute to the Belt and Road collection to make accessible relevant materials acquired from research fieldtrips. A specialized subject guide with relevant resources and faculty hosted website were developed with the aim to showcase institutional research outputs with global networked resources, in consultation with an advisory committee that consists of graduate students, faculty and librarians.

Featured Grey Literature

As the Belt Road Initiative is essentially driven by high level of government or intergovernmental agencies in policy making and decision in state funding, much of the documentation and literature will be joint declaration papers, policy papers, project reports and government statistical data, etc. from agencies of the governments concerned in the Belt Road countries. Most are open data discoverable through internet searching and not only from the library webpage. For unbiased views beyond the fundamental resources, the Libraries aim to promote a more global perspective for broader impact that includes possibly other genres of scholarship normally not represented in the library information system. These are resources which may not have been published through traditional academic and trade publishing practices referred as grey literature. Examples of grey literature genres might include government or council documents, conference papers, policy statements, speeches, essays, news reports, statistical data, comparative country case studies, reports from interviews, etc., to provide evidence with social and economic impact, discoverable in the World Wide Web. Table 1 lists examples of key resources that fall within the scope of grey literature resources.

Table 1: Featured Grey Literature Resources on One Belt One Road

<i>One Belt One Road Urban Observatory (OBORobs)</i>
One Belt One Road Urban Observatory (OBORobs) is developed in support of a research plan to showcase the research output, mostly in journal and monograph publications and datasets. More importantly, to engage in the research process, the page of Useful Links illustrate various genres of grey literature that include speeches, joint declarations/statements, press release, policy address, conference materials, public lectures, research seminar series, etc., which researchers contribute in collecting from research sites to share via the departmental website (Faculty of Architecture, HKU, n.d.).
<i>HKTDC Research Belt and Road Initiative</i>
The Hong Kong Trade Development Council Research has developed a highly inclusive portal to Belt Road resources under its China trade webpage. Resources include research reports, business cases, insight and empirical studies, as well as multimedia and infographics. The comparative country profile analyses and business guides of all the Belt Road countries serve to connect governments and businesses with investment projects and cases references (Hong Kong Trade Development Council, n.d.).

<i>South China Morning Post Topic on Belt and Road Initiative</i>
This is the online version of the South China Morning Post, Hong Kong's major newspaper and online news in English. This Belt and Road Initiative webpage can be found under News on China. It serves as a portal to many grey literature resources listed under the subheadings: 2017 Summit, Background, Comment (Opinions and Op-eds), Nations, Projects and Interviews. Many featured articles include embedded media links, infographics and video clips.
<i>SSRN</i>
SSRN eLibrary is a rich showcase of research papers and ideas in preprints, working papers, policy papers, comments/opinions, case studies and data which are shared by researchers during the course of collaboration and content creation. A search on Belt Road Initiative retrieved some 170 documents ranked by number of downloads.
<i>Mendeley Data</i>
Mendeley, an example of scholarly collaboration network, captures a variety of data files in a number of open repositories and sources enabling ORCID interoperability and connections among researchers. A search on the term Belt Road Initiative found more than 38063 results of datasets sorted by the type of file and repository types and sources. The openness of data within an open culture of scholarly communication is inevitable going forward, as much of the discovery for contents now occurs in the collaborative space where researchers meet and might share their data.
<i>United Nations Development Programme China</i>
The UNDP China website is a key resource to understand the Belt and Road Initiative as an economic model for growth linked to internationalization, globalization with many policy papers, reports and case studies.
<i>OBOREurope</i>
Serving a similar purpose as the HKTDC Research website, OBOREurope is a platform of cooperation that promotes Belt Road Initiative in Europe. Asia and Central Europe will soon be connected by a railway under construction to Piraeus in Greece, strengthening its position as the Mediterranean gateway to the new Silk Roads in Europe.

Grey literature in particular offers an important knowledge dimension beyond the traditional scholarly resources in supporting global interdisciplinary research themes. To feature the collective of primary materials, both virtual and physical resources, the subject librarian, in consultation with research faculty, developed a subject guide on OBOR using LibGuide (University of Hong Kong Libraries, n.d.). In addressing the challenge in collecting and showcasing research output to the outside world, the Scholars Hub, HKU's institutional repository, serves to host, showcase, preserve and provide green open access to research output, as well as to provide the platform for research data management to better prepare the shift toward open scholarship (University of Hong Kong, n.d.a).

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