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Qualitative Evaluation of Similarities and Differences between East Collectivists and West Individualists in Open Content Learning Activities (OCLA)

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Abstract

Background & Aims: There are many studies that have explore “quantitatively” reasons for volunteerism to real-world organisations (RWO), open source software (OSS), open content webpages (OCW), and open educational resources (OER). However, these studies depend mainly on macro-level questionnaires that cannot go beyond the “superficial” statistical reasoning. Therefore, there is a need to explore further the causality of different factors, including culture, individual’s traits, and their context upon OER read-writers motivation at the individual/ micro-level. Such understanding helps advancing the design of open content learning activities (OCLA) to accommodate individual and cultural differences.

Methodology & Methods: To explore motivation and factors impacting it at the micro-level, online interviews were conducted. These interviews were text-based, and by using Instant Messaging (IM) software called Trillian, which is capable to integrate different IM providers. Interviews were coded and quantified to explore the differences (and similarities) between Arabic collectivists ($N_{Ar}=9$) and English individualist ($N_{En}=11$). Interviews aimed to draw Wikibooks read-writers about their views on how to enhance participation and deal with technical issues.

Results & Findings: Evaluation reveals a clear differences between Arabic and English interviewees: which English interviewees are motivated by rational values, Arabic interviewees are motivated by traditional values. Beyond many implications discussed in this paper, how OCLA can be designed around enhancement and problem-solving is a question that needs an answer in the future research.

Keywords: Cultural differences, Arabic culture, English culture, individualist, collectivist, open educational resources (OER), open content learning activities (OCLA), text-based online interview, Wikibooks, and wikis.

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Qualitative Evaluation of Similarities and Differences between East Collectivists and West Individualists in Open Content Learning Activities (OCLA)

Introduction

Over the last few years, ICT have been used in education [1; 2]. Governments have allocated resources to make ICT accessible for students and staff in educational institutions, and to provide training to teachers in order to engage ICT tools in curriculum to support learning and teaching processes [3]. The term ‘open educational resources (OER)’ was first coined in UNESCO’s International Institute for Educational Planning IIEP [4]. D’Antoni [4] refers to OER as web based materials that are offered openly and for free, to use and re-use for different educational purposes: in learning, teaching, and research worldwide. Open educational resources, specifically wikis and blogs carry their own applicability: they can be used in different countries, regardless of their local languages or their economic conditions. Some schools and universities, in different developed and developing countries have already experienced the advantages of engaging wikis in their learning activities [5; 6; 7]. Indeed, OER have become core pillar components for e-learning 2.0 [8]. Recently, teachers began to moderate student learning activities and that includes even supporting collaboration outside classroom hours – and one of the famous collaboration means is the use of wikis [9].

Wikis are being used in many ways to facilitate collaboration and information sharing among learners [10; 11; 12]. They help develop writing skills [13; 14; 15], and facilitate interaction [16]. Moreover, wikis allows instant revisions and feedback [17], support reflective learning [18], and increase the efficiency of writing documents cooperatively [19]. Wikis also support collaborative storytelling skills [5], as well as the positive transfer of information [20], and develop critical thinking skills [21; 22]. Therefore, more attention should be given to integrating wikis into learning and teaching activities in terms of curriculum design and teacher training. Teachers need to be aware when integrating wikis into learning activities that only a few students tend to contribute most posts to wikis [23]. Wiki, as an emergent tool in education practices, may have the same concerns such as lack of pedagogical change, poor technical support, and lack of adequate course preparation. Educationists must be clear about the intended outcomes of the technology used and strive to make curricula that do not confuse technological interactivity with interactive learning [24]. Wikis became integral parts in Learning Management Systems, such as Moodle (Modular Object-Oriented Dynamic Learning Environment). Within these leaning management systems, learners from different cultures are interacting together and with the educational content. Therefore, it is argued that any open content learning activities (OCLA), theoretically, should consider individual and cultural differences – areas of interests that are explored in this paper.

The motivations for teachers to use wikis may differ from those of their students, even within ‘formal’ learning settings. While teachers want to develop collaborative skills and critical thinking skills [13], academic or professional writing skills [15; 25], and the co-invention skills [12; 25; 26; 27]; students see wikis as good tools for easy collaboration and information sharing, overcoming the more cumbersome practices of file sharing or file rotating. Students also see wikis as a tool to share experience and information while learning [28]. However, motivations for those contributing to wikis, such as Wikibooks, that are not used within formal education settings are different. A previous paper [29] has provided an insight into the reasons for contribution to open educational resources, and more specifically Wikibooks, and most of those using Wikibooks were self-learners who developed lifelong learning skills. That previous study [29] went further to explore what hinder those read-writers from contributing to open educational resources.

Lifelong learning is a voluntary activity [30]. Since the values (or goals) behind voluntary activities vary from one person to another [31], an individual's inspiration in taking up lifelong learning may also vary. In computer-mediated learning (e-learning), contents and methods are mainly student-centred and they are flexible enough to address the needs of diverse populations [2]. It can be said, therefore, that e-learners are pushing new requirements into education, specifically directed towards personalised learning [see for example 32; 33]. Learning can be adapted to the needs of each learner [34]. This does mean, however, that learner traits and values, including those reshaped by their cultures, come into play. Yuan, MacNeill and Kraan [35, pp. 15-16], for instance, have argued that OER projects give learners 'an insight into culture-specific methods and approaches to teaching and learning'. They stress that 'localizing OER material is not only a question of language but also one of culture'. The different language versions of OER projects, such as Wikibooks, is an evidence that their read-writers are from different cultures. Therefore, in order to enhance read-writers' participation in OER, their motivations needed to be understood first. Although it has been argued that there are no fundamental differences across cultures in universal human motivation, the variations are apparent and have more to do with content of the motivation [36, p. 64]. Therefore, exploring cultural differences in OER motivation is essential when aiming to design culture-specific open content educational activities. Unlike previous research which studied OER read-writers' motivational differences (and similarities) from the universal level, this research aims to explore the OER read-writers' motivational differences (and similarities) from the individual level – especially that their education, ICT skills, values, attitudes and/or experiences and their surrounding environments (including community and education systems) are reshaping their motivations.

Methodology

Previous research on voluntarism, in RWO, OSS, OCW and OER, depended heavily on quantitative methods [see for example 28; 31; 37; 38; 39; 40; 41; 42]. Such quantitative methods, through questionnaires, cannot go beyond the 'superficial' volunteerism reasoning, since they cannot provide a *full* measure of a volunteer's motivation [43]. To be able to explore OER read-writers' motivations at the individual level, meeting with research participants is the mean. The population of this study are online OER users who are distributed around the globe. It is difficult, and perhaps impossible, to meet research participants face-to-face [44]. Computer-assisted online interviews were used to meet the research participants [45]. A common concern in all online research relates to the risk that the sample can be 'biased' towards educated, digitally literate, and above-averaged socioeconomic status individuals [46, p. 32]. Despite such concern, it can be argued that the issue of biased sample is not applicable on the current study since the population of the OER users are those who are educated and digitally literate. It must be noted however, and as Wilson and Dewaele [47] has argued, that there is evidence suggests the internet population is rapidly moving beyond this group.

Since the aim of interviews is to identify cultural differences at the 'individual level', it means that interviews need to be exploratory, with little structure, to allow participants to develop their thoughts and provide insights into their own experiences and attitudes, and convey perceptions of their culture and community, especially that such thoughts, values, attitudes and/or experiences cannot be observed in any other ways [48]. Online interviews provide an opportunity to further explore OER user education, skills, and values and their surrounding environments including education system as enabler/hinderer of OER engagement. Education systems may enable or hinder the use of OER engagement, depending on levels of ICT equipment and teachers' digital (ill)literacy. Understanding Wikibooks read-writers' beliefs and their perceptions of their social reality are essential to achieve clear comparisons [49]. The online interviews were conducted with Arabic collectivists and English individualists to help explore cultural differences (and similarities) in OER read-writers.

Computer-assisted online interviews were used to meet the research participants [45]. A synchronous communication technique (using instant messaging software such as MSN Messenger and ICQ) [50] was used to conduct online interviews. Semi-structured interviews were conducted through an instant messaging (IM) system. Instant messaging (IM) is a communication format that mediates directly and synchronously between the sender and the receiver of messages, and these messages can be logged with time/date stamps [51].

Among different techniques for interviewing, semi-structured interviews were argued to be allowing participants the flexibility to express themselves in their own words and explore issues in greater depth within a limited time frame [52]. Semi-structured interviews provided an ideal method to further understand individuals' life experiences and any disagreements between real and ideal of the self and their societies [53]. Interviews study adopted a new approach: it questioned explicit and implicit motivations. Interview research participants were asked to express 'explicitly' their reasons for volunteering (or not volunteering) to OER Wikibooks. Research participants were asked to provide their opinions about others' reasons for volunteering (or not volunteering) to OER Wikibooks – which is argued to be providing an insight on 'implicit' motivation. A clearer picture could be drawn. Participants were asked to provide information about their experiences with using wikis and Wikibooks and their perceptions about their surrounding environment, as well as their views about ways to promote contribution.

Interviewees were recruited by a number of means: 1) those who have answered the online questionnaire and are interested to be interviewed were asked to provide their IM accounts in a separate online contact form, 2) publishing linkable website notice on Arabic and English Wikibooks inviting potential participants to provide their IM email addresses (along with their nick names) so that personalised messages were argued to improve the response rate [50], and 3) email distribution to Wikimedia Foundation mail lists were sent, inviting *only* those who are Wikibooks users to fill in the interview form with their IM email addresses. Interested participants were then received an 'add contact' invitations from the author's IM identity '*interviewonwikibooks*'.

A more relevant concern for this interviews study relates to the authenticity of responses – where participants are able to disguise their nationality, gender, age, occupation and even their interests [46]. However, a combination of age and educational level or occupation and age may indicate to their age [46], or country, city and language can help to determine authenticity of participant responses in relation to their culture. Despite these limitations, online interviews remain an effective tool to conduct research with geographically distributed participants.

Online interviews are conducted using instant messenger software. Examples include *Skype*, *MSN Messenger*, *Yahoo Messenger* and *GTalk (Google Talk)*. While IM software allows for a range of different communication modalities including voice and text, interviews were conducted using text chat. Text-based chat systems provided a real-time direct communication channel between research participants and researcher. Text-based conversation is more reliable [54; 55] than transcribed audio/video taped interviews because it saves time and effort in transcription – since interviews were 'immediately transcribed in the messaging window' [51, p. 62]. Text-based chat allowed overcoming communication barriers of shyness that research participants may face and has improved self-disclosure [50].

Trillian software [56] were used to conduct the interviews – as it integrates different *Yahoo*, *MSN*, *GTalk*, *ICQ*, and *AIM* accounts into one *Trillian* account [57] – and for this research ‘*interviewonwikibooks*’, and thus saved the researcher’s effort to manage different messengers. *Trillian* provides a feature that enables the researcher to maintain the history of a conversation with time and date stamp, sorted into folders (according to instant messaging providers). This feature helped automatic record-keeping. Participants were not required to download *Trillian*, and they were able to use their regular IM software. The use of a flexible interview guide has helped to ensure that in-depth semi-structured interviews maintain focused [58; 59]. Based on the interview guide, an ethics approval from the University of South Australia has been obtained, P244/08. Participants received information sheets about the research before they participated in the interviews. Most interviews, either in Arabic or English, took between an hour and an hour and half.

Once an interview finished, the data was saved, along with the automatic date and time stamp, in a secured hard drive, for further processes that included: 1) giving a pseudonym to each interviewee to protect their confidentiality – and this pseudonym reflects their gender and cultural background for reporting purposes. Furthermore, any identifying data were deleted from the interview transcript, and replaced by a description, 2) editing interview transcripts to correct grammar and spelling errors, complete sentences to make them understandable, and merge IM messages together to compose complete answers, and 3) translating Arabic interviews into English.

Interviews Analysis

Qualitative research such as this required a clear evidence of recurrent or patterned responses. Approaches that was used in interview analysis involve organising the interview texts into meaningful forms of presentation. These approaches included meaning categorization [themes], codification of meanings [60], and meaning interpretation [61] – which were done by the author who has a better position to create more meaningful probes [62] than any independent coder/ interpreter [63]. All interview data units were reanalysed a number of times to grasp consistent themes and descriptions [64]. Analysis of interview qualitative data also involved quantification [65, p. 140] – which makes observations explicit, easier to aggregate & summarise, and to conduct comparisons [66, p. 24]. Coding aims to approach a dynamic balance between the qualitative meanings that emerged from the data, and the quantitative number categories which measure their relative frequency [67]. After quantification occurred, comparisons were made between Arabic and English interviewees.

Interviewees sample

The purpose of interviews is to examine and report OER user experiences with wikis and Wikibooks, as well as their perceptions about themselves, others surrounding them and their contexts. Pseudonyms were used to represent interviewees’ gender and culture. Demographic data, including country, age, education, religion (when applicable), and occupation, of these interviewees are illustrated in Table 1. The sample size was N=23, and it includes 11 English participants and 9 Arabic participants. However, the 3 Indian participants were not included in this paper.

Table 1: Interviewees’ demographics and their Wikibooks involvement

Pseudonym	Age	Gender	Education	Culture	Occupation	Religion	Wikibooks’ involvement
Adrian	25	Male	B.Sc. Information Technology	USA	IT Assistant	Christian	Writer Administrator
David	40	Male	American Law degree	USA	Lawyer	Christian	Writer
Clinton	59	Male	Bachelor of Biology	USA	Physician’s assistant & med. sonographer		Writer
Douglass	56	Male	Applied Associate of Science	USA	Businessman		Writer
Nikos	21	Male	Un- completed university degree	Greek-USA	Labour Jobs		Writer
Mark	31	Male	Maths & Computer Science	UK	University student	Christian	Writer
Philip	36	Male	MSCA Certificate and self-taught	New Zealand	Code manager		Writer
Ronald	23	Male	NAIT college	Canada			Reader Writer
Roy	22	Male	Psychology	Canada	University student		Writer Administrator
Steve	49	Male	B.Sc. Engineering	USA	Engineer		Writer
Susan	51	Female	B.Sc.	UK	Technical Writer		Writer
Abdul	35	Male	Secondary education	Algeria	Accountant	Islam	Reader
Ahmed	27	Male	American Board in Internal Medicine (Master)	Saudi Arabia	Physician	Islam	Writer
Ali	40	Male		Egypt	English Supervisor	Islam	Reader
Aziz	16	Male	Secondary school (year 11)	Oman	Student	Islam	Reader Writer
Bilal	23	Male	Bachelor of education technology	Egypt	Volunteer preacher in an Islamic website	Islam	Reader Writer
Chaaban	26	Male	Bachelor of engineering	Syria	Unemployed	Islam	Writer
Essam	24	Male	Bachelor of arts (history)	Egypt	Unemployed	Islam	Reader Writer
Faraj	20	Male	Bachelor of computer engineering	Iraq	Unemployed	Islam	Reader
Omar	31	Male	Bachelor of arts (Arabic)	Egypt	Arabic teacher	Islam	Writer

User experiences with wikis and Wikibooks

In this section, the ways in which interviewees engaged in wikis in general, and in Wikibooks activities in particular are reported – as summarized in Table 2. A number of codes were introduced, after the first reading of transcripts to categorise the data units: 1) Activities: this code shows how interviewees engaged with wikis, 2) Passive help: is used to report users who seek help from Wikibooks administrators and ask for answers to their technical problems, and 3) Proactive help: is used to report when users do their own research and spend the time and effort to teach themselves to use wikis.

Table 2: Users’ experience with wikis and Wikibooks

Codes	Users’ Experience
Activities	Reading Correcting mistakes especially at the beginning Restructuring articles and Tables of contents (ToC) to make the content organized and readable Improving content by sharing more knowledge
Passive help	When a participant encounters a trouble, they communicate with website admins When no help exist especially with wiki markup language, feelings of dissatisfaction and stress occur
Proactive help	The trial & error strategy helps improving the wiki skills Reading help documentation, user manuals and discussion pages Conducting further research to improve the way the information is presented.

Based on the results presented in Table 2, a number of inferences can be made:

- The introduction of What You See Is What You Get (WYSIWYG) feature will improve the wiki participation.
- Contributors are mainly concerned with quality rather than quantity when they are less confident or less experienced with wikis. Most participants started contributing with simple activities such as correcting spelling mistakes and grammatical errors. Once they became more confident, they started to add more content and restructure the texts' table of contents.
- It is recommended that Wikibooks' administrators watch the talk and discussion pages to know the difficulties that users might have, and this helpful information could be integrated into (video) help modules and FAQs pages. The help documentation should be sufficient, up-to-date, available, searchable, and accessible inside the site.

Interviewees' perceptions about their culture

This section reports, in more narrative ways, on how the interviewees see their culture and community. The analysis of narrative materials emphasises evaluative dimensions of narrative evidence [68].

English interviewees and their culture

Western culture is 'liberal in the European sense' (interviewee Roy). It promotes 'the free culture movement that stems directly from classical liberal theory' (Roy). So, 'sharing amongst community members is important as part of liberal Western culture' (Roy). This is why 'community is very important' (Roy).

However, not all Western people see Western culture as positive in the ways Roy explains. Aspects of Western culture can also be seen as negative, as Mark argues: 'Its [Western culture] degree of capitalism and related mass media' make people seek 'entertainment rather than more philosophical goals' (interviewee Mark). This culture that 'originally developed in Europe spread to much of the world' (Mark). This is why the 'Far Western culture [a very capitalist society] does not encourage contribution' (Mark). However, 'it encourages other things, so people might not often think about [how] contributing to open content benefit[s] them' (Mark). Not all people spend their time achieving beneficial and socially altruistic goals: Adrian 'often [has] free time' and he enjoys 'being productive with [contributing rather] than wasting it playing games all the time like some of [his] peers in school' (interviewee Adrian). Peers, even more, may discourage contribution. For example, people around Philip 'cautioned [him] against doing too much too soon' (interviewee Philip).

Western culture's spread around the world through mass media, including the internet, renders the conceptualisation of Western culture unclear. New media industries have restructured cultural identities; and now there is an interplay between globalisation and localisation, which makes the maintenance of national identities difficult and transitional [69]. Such dynamic cultural flows cause a plurality of cultures within boundaries of national identities [70]. The industrial production of culture (and entertainment) led to new forms of cultural difference and new imagined spaces which bound the sense of locality [69]. For example, Philip wondered 'what Western culture is about other than the language' (Philip). He explained that what causes the unclear definition and values of Western culture is the high level of individualism. 'I spend a lot of my time on [the] computer, which is something that would happen, and has happened, regardless of which country I was in. I cannot think of a single thing that would qualify for [Western culture] in my life style' (Philip).

Globalisation has resulted in increased levels of mobility, causing not only unclear definitions of Western culture, with many Western countries open for immigrants and international workers and students, but also mixing of cultural values at the national level. For example, in New Zealand where Maori 'are trying desperately to hang on to their culture' (Philip), Philip feels that he has begun 'to realise that [he does] not [have] a culture of [his] own' other than 'the enjoyment of Vegemite' (Philip). Globalisation not only impacts upon the sense of locality, but is also 'associated with new dynamics of re-localisation... it is a matter of inserting a multiplicity of localities into the overall picture of a new global system' [69, p. 116].

Adrian, for instance, explained his American culture as ‘largely a mixture of other cultures from around the world as a result of people’s immigration here and bringing their cultural heritage with them’ (Adrian). For example, Douglass sees himself as ‘native born American’ but from a family of ‘two native tribes, Irish and Scottish’ (interviewee Douglass). This is why Adrian sees that ‘the combination of all of those [immigrants] has produced a unique result’ (Adrian). He explained that ‘American culture, *per se*, continues to evolve’ (Adrian). However, ‘it is very hard to pin it down to a specific definition other than to say that is free-form [continually evolving] and not easily defined’ (Adrian). Its colonised history characterises American culture as a ‘culture of accommodation’ (interviewee Clinton). Clinton explained that ‘everything is judged in relative terms’ which, according to him, is ‘a recipe for underachievement’ (Clinton). Clinton considered that ‘this accommodation at any price will only produce more people who will “get-by” with minimal efforts’ (Clinton). He compared himself years ago, when he was a physician’s assistant, with the new generation: ‘for years, I helped train other medical professionals. I found that, as time went by, more and more students were satisfied with “just getting by” rather than excelling’ (Clinton). Clinton wondered ‘if [individuals] are going to do something, why [they] do not strive to be the best?’ (Clinton). But Clinton considers that he has an old-fashioned type of personality, which according to him is about ‘trying to be the best’ (Clinton). However, he stressed that this personality character ‘served [him] well’ and made him ‘the best physician’s assistant that ever came along’ (Clinton).

It seems that the “getting-by” principle is active not only in the USA where Clinton lives, but exists in other countries too. This principle affects individuals’ curiosity not to learn more, and even produces a tendency not to be honest when sharing/conveying information. For example, in discussing his own wiki interests, Douglass pointed out that ‘most people that write about [the] history of [the] Cougar as far as Western Canada, Washington, and Oregon [have] actually never been there’ (Douglass). Douglass, who grew up in Oregon, continued to say that ‘I have personally seen many animals that people, from the cities, think ... either do not live there, or are extinct’ (Douglass). Together, these recurrent comments on the levels of commitment and direct expertise in online information sharing, suggest a wiki-activist population which views itself as more expert, more committed, and more concerned about proficiency and standards than the norm.

These comments on lack of curiosity in the USA are reinforced by a European respondent, who claimed that the young adults in Greece are not curious to learn. One explained that ‘knowledge in Greece is not that much appreciated’ (Nikos). Education is given less credit in Greece and is not taken seriously by all Greeks (Nikos). Unawareness of the potential for online informal delivery of ‘philosophical and beneficial goals’ (Mark), is reflected in comments that users focus on entertainment such as playing games (Adrian), while ‘most teenagers care [only for] their life-style and their work/job (Nikos). Europeans and the US respondents thus positioned themselves as directed towards higher cultural values – a predisposition they view as not widely shared within their society.

It can be concluded from the above presentation that English participants value information sharing, and they use their free-time in productive internet activities – as part of their *digital* Western culture. Within the technological dimension of Western culture, it appears that more attention is given to the “expected” *digital* side of human behaviour than the face-to-face side. Within such expectation, English contributors are not satisfied about non-contributors, and see them as selfish and not willing to learn. This adds to the debate relating to the conflict of interests between the two groups about expectations in regard to the evolution of social behaviour in digital Western culture.

Arabic interviewees and their culture

Ahmed defined his Arabic culture as ‘oriental with wide horizons’ (interviewee Ahmed). Ali described and characterised Arabic culture with three values: ‘1) loyalty and belonging to the nation not to individuals; 2) working for the convenience of others [and] 3) love and tolerance among people [as] the bases of life in the universe’ (interviewee Ali). Ali linked these three cultural values to religion: ‘because these [three values] are the basis of monotheism religions, the best thing is to see [that] people around are happy’ (Ali). He explained that, ‘it is great pleasure to sacrifice for others’ (Ali). Yet, these three values are not enough to explain Arabic culture. Omar explained other positive values in Arabic culture, reclaiming the scholarly philosophies of the Arabic Islamic past: ‘we Arabs are first to care about humanity and the freedom of expression’ (Omar).

It appears, however, that Arabs currently are not satisfied about their current social reality compared to the history of Islamic civilisation. Omar dreams that ‘one day we can live in a democratic society’, but ‘we had relinquished freedom. This day must be [brought] back, and we will govern the whole world with peace’ (Omar). This imperialist project, according to Omar, reflects the history of Islamic civilisation.

Arabic interviewees agreed that their nations share a long great history, strongly impacted by religion and especially Islam. For example, Faraj stressed the diversity of his history, noting that ‘Iraqi civilisation is a great civilisation and branching’ (Faraj). He listed the great achievements of the past: ‘Babylonian civilisation, Assyrian civilisation, and Islamic civilisation’ (Faraj). These civilisations have each had a significant impact upon communities of people in Iraq (Faraj). For instance, ‘Islamic civilisation has been affected by the Muslims; and Assyrian civilisation has impacted Assyrian Christians’ (Faraj).

Similarly, ‘Egypt has a great history and a nice culture because there were ancient Egyptian civilisation and Islamic civilisation’ (interviewee Essam). Oman, too, has a great history and the ‘*Khasab Castle*’ is seen as a monument to its civilisation (interviewee Aziz). Despite this pride in their ancient civilisations, Arabic world respondents (such as interviewees Abdul, Aziz, Essam, Faraj and Omar) considered their current social circumstances as different in terms of human rights, education, and politics, and especially as these factors relate to religion.

In regard to politics, Omar is ‘unsatisfied about corruption and control that are undertaken by the government over citizens’ (Omar). Moreover, Omar is not satisfied with what he sees as one current element, that ‘the USA dominates the whole world using lies about terrorism, which is attached to Islam, while Islam seeks for peace and security for humans’ (Omar). Abdul also commented that ‘Algerian culture suffers from significant deterioration in front of secularism; and all that is left of it is just a lie on TV’ (interviewee Abdul). Similarly, Omar sees that ‘the Arabic culture does not exist anymore in Egypt’ (Omar) which strongly indicates a sense of cultural decline, and global powerfulness. Many complain about ‘American’ cultural imperialism which they view as caused by the standardisation of world culture through American media, food and clothes, even to the extent of aligning these with the notions of democratisation and freedom [71]. These factors impact upon the incentive to contribute to the maintenance of cultural knowledge and information use, as offered through Wikibooks, as an attempt to preserve cultural identity.

Some Arabic respondents were quite explicit in their assessment of how important it is for the Islamic cultures to reclaim their heritage. In regard to education, Omar argued that ‘school textbooks become very far from our principles and cultural values’ (Omar). He believes that the current education system has an ‘empty curriculum’ (Omar). He stressed that more attention needs to be given to education and research (Omar), to rebuild an Islamic curriculum. Others suggest that contemporary education in Arabic countries is contributing to widespread negative attitudes toward learning. This indicated that the ‘getting-by’ attitude from the US and Europeans respondents also exists in the Arabic world. Both Bilal and Omar have pointed out that many people are not especially interested in online activities involving reading and writing (interviewees Bilal; Omar).

In regard to human rights, some participants argued that people in the Arabic world dream of living in democratic societies (Omar) where people can enjoy freedom of expression (Omar). Even the education system in Arabic regions provides many examples of an inadequate focus on human rights and human rights education. For instance, teachers are not permitted to discuss their cultural values with their students (Omar). Teachers are not permitted to discuss with students ‘how to seek [their own] rights and how [they] maintain [their] respect’ (Omar).

In Saudi Arabia, ‘many websites are blocked by the government’ (Omar). This is one reason why ‘people feel deprivation’ (Omar). Similarly, although all schools and universities in Algeria are equipped with PCs, ‘they are not connected to the internet’ (Abdul). Cultural development that has the capacity to access new ideas, and to consider these within the local context, is thus blocked, to the detriment of human creativity, self-expression, and spiritual strength.

Despite all of these issues in Arabic regions, some Arabic users of Wikibooks have decided to contribute to content. For example, Essam recognises the ‘many problems in his country and the Arabic world’ (Essam), yet asserted that ‘by writing, [he] is trying to play a role, and may be [able to] help some people’ (Essam). To this extent, Arabic world respondents see themselves as cultural agents of new knowledge, and social leaders for their regions.

It can be concluded that Arabic participants see their cultures as superior as based on religious principles of Islam. The digital technology is only a tool to disseminate such a view and ideology. Therefore, information sharing is a defensive action, rather than a protection gained by learning. They consider that Western-biased global media pose a threat to their culture and religion. Even the education system is seen as globalised and erodes their beliefs in their unique superiority. The hidden debate between contributors and non-contributors is more related to issues of digital illiteracy and the social divide within digital literacy than the level of expectations.

Wikibooks users: approach and avoidance

Users’ reasons for contributing to Wikibooks (approach)

The first reading of the interview texts identified possible codes that can be used to cluster the interviewees’ reasons for Wikibooks contribution. However, each code addresses an interviewee’s personal reasons for contribution, and this in turn reflects their personality, values and way of thinking. The codes that were used are: career, community support, discussion, enhancement, enjoyment, financial gain, helping the disadvantaged, helping others to learn (information sharing), increasing quality of information, lack of resources, learning, obligation, publishing, recognition, request, solving problems, use of spare time, value of freedom, value of knowledge, value of volunteerism, and writing skills.

In the second stage of the interview analyses, each sentence in the conversation has been qualitatively analysed and interpreted against these codes. Then, the frequency of codes was quantitatively analysed to assess the relative ratios of contributors’ reasons for contribution, implicit or clearly expressed, to draw a clear overall picture. How interviewees’ reasons for contribution (explicit or implicit) were coded and collated against the 21 codes outlined above. Percentages of response frequency have been calculated for each culture, in help in comparisons – see Appendix 1.

Table 3: Percentages of interviewees’ intrinsic and extrinsic reasons for contribution to Wikibooks

Motivation	Arabic culture		English Culture	
	Intrinsic	Extrinsic	Intrinsic	Extrinsic
Community support	2.8		2.6	
Discussion	0.9		4.2	
Enjoyment	4.7		6.8	
Help disadvantaged	1.9		3.7	
Learning	1.9		8.3	
Use space time	1.9		3.7	
Value of freedom	3.7		5.2	
Value of knowledge and information sharing	24.2		24	
Value of volunteering	2.8		0.5	
Writing skills	2.8		5.2	
Career		4.7		3.1
Enhancement		7.5		9.4
Increasing the quality		3.7		1.0
Lack of resources		3.7		1.6
Obligation		15.9		3.1
Publishing		0.0		2.6
Recognition		3.7		7.8
Request		0.0		2.1
Rewards and financial gains		3.7		1.6
Problem solving		9.4		3.7
Total	47.6	52.4	64.1	36.9

Percentages in Table 3 are originally presented in Appendix 1.

Percentages in Appendix 1 are amended in Table 3 where ‘Value of knowledge’ is merged with ‘value of information sharing’.

The evaluation shows that the interview participants, who are contributing to Wikibooks are motivated by intrinsic motives such as enjoyment and integrated values; however, the rewards that individuals get from contribution, the extrinsic motives, are much higher than intrinsic motives. Moreover, while volunteering is a personal act, where each volunteer has to weigh the costs and benefits of participating, many studies have found that the main reason for volunteering is the desire to help others (altruistic motivation) [72]. But this focus on the value of helping others differs across cultures [73]. The main motivation in OER participation is information sharing and helping others to learn. But it is also clear that Wikibooks users would not contribute if contribution did not benefit them. Enhancement, enjoyment, learning, recognition, and developing career opportunities are among the benefits Wikibooks users get from their contribution. Indeed, volunteers (such as Wikibooks contributors) prefer activities that ensure benefits for themselves, and these benefits do not agree with personality related motives [74]. The evaluation, presented in Table 3, reveals that the intrinsic reasons for contributing to Wikibooks for English individuals were higher than those for Arabic individuals, while extrinsic reasons for contributing to Wikibooks for those from Arabic cultures were higher than for those of English cultures.

Users’ reasons for not contributing to Wikibooks (avoidance and effort reduction)

The coding strategy employed to analyse interviews involved two stages: initial coding (through an initial and broad reading of transcripts to search for any concrete themes that could be related to the theoretical study) and focused coding (when initial codes accumulate, the themes are articulated and shape focus codes) [75]. The first read through the interview texts helped identify the codes used to categorise and cluster the interviewees’ reasons (explicit and/or implicit) for non-contribution. Codes identified are: amount of effort needed, effort considered useless (knowledge is unappreciated), entrance barriers, lack of confidence, no financial rewards, other interests, poor quality content, responsibilities and time constraints, selfishness and free-riding, technical difficulties (no technical help), and valueless efforts. The second read through (focused coding) helped to analyse interview responses against the identified codes to cluster dominant responses into significant categories – see appendix 2.

Table 4: Percentages of interviewees’ self-reflective and system-reflective reasons for non-contribution to Wikibooks

Amotivations	Arabic %		English %	
	Self	System	Self	System
Amount of efforts needed (and laziness)	9.8		15.1	
Knowledge is unappreciated	0		12.1	
No financial rewards	2		3	
Lack of confidence and lack of knowledge	9.8		24.3	
Other interests	25.5		6	
Selfishness and free riding	13.7		0	
Entrance barriers		0		3
Lack of awareness of Wikibooks		3.9		0
Poor quality content		3.9		3
Vandalism and openness		2		0
Responsibilities and time constraints		17.6		9.2
Technical difficulties (no technical help)		11.8		24.3
Total	60.8	39.2	60.5	39.5

Percentages in Appendix 2 are amended in Table 4 where ‘Amount of efforts needed’ is merged with ‘valueless effort’.

An interesting finding is that both Arabic and English interviewees are amotivated due to reasons related to themselves more than reasons related to their surroundings. Although most of the reasons can be considered unmanageable, providing solutions and help to technical difficulties is argued to be improving the lack of confidence.

Interviewees’ views about others

In the previous section, interviewees were asked about their experience with wikis and Wikibooks. The interviewees’ explicit comments and implicit motivations identify their reasons for contributing and not contributing to Wikibooks. Story-based measures of implicit motives have greater validity than self-reported motives, recorded in questionnaires as explicit goals [76], and such the self-representation differs across cultures [77; 78]. This section reports how interviewees saw others’ reasons for contributing and/or not contributing to Wikibooks. Assessing both interviewees’ reasons for contribution and how they see others’ reasons for contribution helps compare their self-concept and their perception of others [79].

Interviewees’ views about others and their engagement in Wikibooks

The first read of the interview texts helped to identify possible codes to be used to link the interviewees’ perception of others’ reasons for contribution. The codes are: help others to learn (information sharing), value of knowledge, enhancement, learning, publishing, recognition, business collaboration, financial reward, enjoyment, increasing the quality of knowledge, discussion and to display expertise. In the second stage of interview analyses, each sentence in the conversation is qualitatively evaluated and interpreted against the meaning codes. Then, the frequency of meaning codes is quantitatively analysed to assess the shared perception of other contributors among interviewees – see appendix 3.

Table 5: Percentages of interviewees’ perception of others’ intrinsic and extrinsic reasons of approach

Motivations	Arabic %		English %	
	Intrinsic	Extrinsic	Intrinsic	Extrinsic
Value of knowledge and information sharing	30		26.8	
Learning	40		22	
Enjoyment	0		7.3	
Increasing the quality	0		7.3	
Discussion	0		4.9	
Publishing		10		2.4
Recognition and demonstrate expertise		10		14.7
(Business) collaboration		0		4.9
Financial reward		0		2.4
Enhancement		10		7.3
Total	70.0	30.0	68.3	31.7

Percentages in Table 5 are originally presented in Appendix 3. Information sharing was excluded from the presentation. Percentages in Appendix 3 are amended in Table 5 where “Recognition” and “Demonstrate expertise” are merged together. Percentages in Appendix 3 are amended in Table 5 where “Value of knowledge” and “Information sharing” are merged together.

As illustrated in Table 5, among different reasons of contribution, interviewees saw that other Wikibookians contribute mainly because they would like to learn. An interesting finding is that while English interviewees see other Wikibookians are motivated by wide range of intrinsic and extrinsic reasons of motivation, Arabic interviewees see other Wikibookians are motivated by limited reasons – learning & value of knowledge (intrinsic) and publishing & recognition (extrinsic); but in general intrinsic motivations are slightly more valued for Arabic interviewees than English interviewees, while extrinsic motivations are slightly more valued for English interviewees than Arabic interviewees.

Interviewees’ views about others and their avoidance and engagement-reduction with Wikibooks

The results of interviews analysis of how interviewees see others’ reasons for avoiding or reducing their contributions are shown in Appendix 4. These reasons, whether self-reflective or system-reflective, are presented in Table 6 – as follow.

Table 6: Percentages of interviewees’ perception of others’ self-reflective and system-reflective reasons of avoidance

Amotivation	Arabic %		English %	
	Self	System	Self	System
Lack of valuing knowledge and information sharing	14.0		11.4	
Lack of writing skills	7.0		7.1	
Lack of technical skills	7.0		10.0	
Feeling of demand (amount of effort needed)	4.7		4.3	
Other interests	4.7		0.0	
Selfishness and free riding	2.3		7.1	
Effort is useless	2.3		2.9	
Lack of confidence	2.3		7.1	
Lack of valuing voluntarism	0.0		7.1	
Lack of awareness of Wikibooks		18.6		18.6
Vandalism		4.7		2.9
Copy left		2.3		4.3
Lack of recognition		2.3		0.0
No reward		0.0		7.1
Poor quality		7.0		1.4
Time constraint		2.3		4.3
Other barriers		9.3		4.3
Infrastructure and digital barriers		9.3		0.0
Total	44.2	55.8	57.1	42.9

Percentages in Table 6 are originally presented in Appendix 4.

From Table 6, it can be understood that while the English interviewees' perception of others' self-reflection reasons is higher than the Arabic interviewees, the Arabic interviewees' perception of others' system-reflection reasons is higher than the English interviewees.

Subject preference among Wikibookians

Reasons for contributing and non-contributing identified through interview analysis show different rankings for contributing and not-contributing to Wikibooks for the two samples (English group and Arabic group). There is, for instance, a clear cultural orientation in topics that Wikibookians prefer to read and/or write about.

Subject preference among English Wikibookians

Among Wikibooks users from English cultures, most users read and write about topics relating to their own interests and their educational background. However, hard sciences are dominant. Information technology subjects have the first level of preference (interviewees Adrian, Philip, Ronald, Roy, Steve, Susan). However, English users have a wider range of reading/writing interests than Arabic users. They read and/or write about history and culture (Clinton; Mark); fiction (interviewee Steve); math (Mark); languages (Mark); religion (Mark); cooking (interviewee Susan); water safety (Roy) and first aid and hearing science (Roy); while others make minor contributions and do proof-reading on different topics (interviewee David; Nikos). It can be concluded that English users are interested in wide range of subjects, although much of their time spent in hard sciences.

Subject preference among Arabic Wikibookians

Wikibooks users from Arabic culture predominantly read and/or write about the history of civilisation (Abdul, Aziz, Bilal, Faraj, Omar); and even when they read and/or write in other fields, these mainly relate to social sciences. Such fields include religion (Essam; Omar), education (Ali; Omar), and politics (Essam; Omar). A few contribute to hard sciences, including health sciences (Ahmed) and communication engineering (interviewee Chaaban). It appears that Arabic users see a role in Wikibooks authoring for fostering their cultural knowledge and other related social sciences.

Voices of Wikibooks read-writers for development and promotion

Suggestions for promoting contribution cannot be separated from users' reasons for contributing and not-contributing to Wikibooks, since these are motivating factors for many active contributors. This section highlights the technical problems that users report and their suggested solutions. To increase contribution to Wikibooks website, and indeed to any other open educational resources, more attention must be given to users' motivation for contributing to Wikibooks. Although the first motivation to write to Wikibooks appears to be simply sharing information with others and helping others to learn, users also want to benefit from their efforts and time in contributing. Enhancement, recognition, problem solving, developing writing skills and maximising their career opportunities are all important factors. Although some report feelings of obligation towards their community, this obligation can also be driven by the desire to solve social issues. Moreover, neither the desire to obtain information freedom nor the desire for knowledge is meaningful without the desire to learn and/or share information with others. Reasons for contributing to Wikibooks can be reduced to learning (including developing writing skills), sharing information (whether due to the desire to help others to learn, feelings of obligation to solve societal problems, or valuing freedom of information and knowledge); solving personal problems (such as loneliness or building a career future), and finally enhancing feelings of pride and achievement. Therefore, messages promoting contribution in can be different across cultures. For English version of Wikibooks, a message could be: "*Be proactive and learn by sharing knowledge*" or "*You cannot be recognised without sharing your knowledge*". There is no need for any of these messages to stress a specific subject, since English participants are motivated by their personal interests, so that there is wide variation in topic choice. To persuade Arabic people to contribute, advertisements should address both social obligation and cultural problem-solving within the fields of their preference. These messages include: "*Your contribution supports the human right to education*" or "*Knowledge is the core of civilization*".

Knowing what motivates individuals may lead to higher contribution, but understanding the barriers and issues that hinder contribution or reduce contributors' efforts may also help in maximising contribution. Interview analysis reveals that both technical difficulties and lack of confidence have great impact upon user motivation, reducing or even blocking their contributions. Other significant reasons for non-contribution may exist beyond the domain of OER projects: while some users have personal leisure and interests that distract them from contribution, others have business and social responsibilities. While other interests and social responsibilities were more significant barriers than technical difficulties and lack of confidence among Arabic interviewees, lack of confidence and technical difficulties were higher than responsibilities and other interests with English interviewees. But, both Arabic and English interviewees mention that laziness contributes to their lack of interest in contributing to OER. Moreover, both Arabic and English interviewees stress that both lack of awareness and lack of commitment to values of knowledge and information sharing are the highest factors in non-contribution of others within their societies. Individuals from both Arabic and English cultures argue that lack of writing skills may also hinder others within their societies from contribution.

Arabic interviewees point out that other people within their societies may not contribute, due to technical barriers relating to digital infrastructure, equipment, or negative social norms and access restrictions within their societies and schools. English interviewees point out that in their societies, members may not contribute because of their personal lack of technical skills (which may include writing skills, as discussed earlier in this paper).

It can be concluded that lack of awareness, technical difficulties/skills/barriers, lack of confidence, and failure to value knowledge contribute to amotivation and a reduction in contributions to Wikibooks. Both lack of confidence and failure to value knowledge can be considered factors in the lack of awareness, as discussed in the following section. Thus, the discussion below focuses on both lack of awareness and technical difficulties revealed by interviewees.

Lack of awareness and building awareness

In English regions

The significant players in motivating users of open educational resources are schools and teachers within schools: engaging students in open content has positive impact upon students and develops their lifelong learning skills. For example, in the interview online Adrian mentions that 'Although they haven't used wikis as part of our learning or teaching activities, one of the classes [he] had in the past had [them] use blogger [sic] to share our different reviews of science fiction movies' (Adrian). The 'classes, that have made use of Wikibooks, have usually done so without any problems' (Adrian). In his experience 'most contributors to Wikibooks are students who are writing on material that they are currently learning in school' (Adrian).

The use of wikis (and Wikibooks) has great benefits for a range of people: 'It improves my ability to interact with others' (Adrian), 'I've learned a lot about how to structure textbooks, and how to write for a specific audience more effectively' (Roy), and 'Being social with other contributors, gaining respect in the community, creating something useful for other people' 'I've learned a lot about how to structure textbooks, and how to write for a specific audience more effectively'... 'Textbooks are educational, and have quite a different style of writing. I suppose I must have learned something, since I'm being considered for a job as a technical writer' (Roy).

But those who contribute to Wikibooks are also aware that their contributions are helpful for others, and contribute to helping their understanding and solving their problems: 'I would think financially disadvantaged students might [take advantage of Wikibooks] at this point, simply because the project has not fully matured and might not be seen as reliable by everyone out there. However, I'd like to think that anyone who has become frustrated by the high cost of textbooks would be interested in Wikibooks' (Adrian). 'Poor people can use Wikibooks resources as long as they have access to them and are curious about the subject' (Ronald).

‘The *‘free knowledge’* dimension of things is why I care. Information should be free’ (David). ‘A child in a country which has limited resources should be allowed and empowered to learn maths, geography, and languages. Nothing should prevent a child from drinking from the fountain of knowledge’ (David). ‘I also hope it helps education’ (Mark). ‘By collaborating with each other, we can create a lot of great things’ (Roy).

There are advantages of Open Educational Resources in general, and Wikibooks in particular. These advantages include rewards for those who contribute to the content, and for the community, which becomes more knowledgeable and enjoys free access to knowledge. Therefore, when designing any open content learning activities OCLA, consideration should be given to the playfulness of learning activities, as well as the sense of reward that any participant may get. However, while not all individuals know about open educational resources, others simply do not support them. Schools in particular seem to have a lack of understanding of the usefulness of this wiki tool for collaboration and information sharing: ‘University professors can make students produce work on Wikibooks as projects for their own [use,] instead of worthless papers in drawers’ (David). ‘Editorship can be increased through university advocacy of improving texts. Students who are doing ‘term papers’ and ‘projects’, if they can do that on Wikibooks, would be marvellous. Look at what MIT (*Massachusetts Institute of Technology*) has done with sharing its curriculum’ (David). ‘School districts have to spend a lot of dollars to buy books each year, under long term contracts that are hard to break, because they have been approved for curriculum. That is the big challenge and barrier for Wikibooks adoption by schools’ (David). ‘I’m simply hoping that more universities see open texts as a reasonable source of textbooks that students don’t have to pay huge prices for. Textbook prices are plain ridiculous’ (Steve). ‘A good start is the professors that actually have their classes write the textbook as they proceed through the year...’ (Steve).

As reported above, while some participants only identified issues that demonstrate their lack of awareness, others were able to provide solutions, from their point of view, to deal with these issues. However, addressing those issues is a problem in itself. For example, to outreach OCER to the academic community, awareness programs should address the usefulness of these OCER for the academic themselves, before they are able to be convinced enough to inspire their students, or even to take part in the peer-review process.

In Arabic regions

Arabic Wikibooks ‘is still quite young’ (Ahmed). Wikibooks is ‘very poor and needs a lot of work which one man cannot do’ (Ahmed). This suggests, as Ali argues, that not many users know about Wikibooks. Thus, ‘advertisements and creating the awareness are needed’ (Ali) since ‘publicity is magic’ (Ahmed). This publicity ‘can be done through small workshops in universities, for example, along with some media coverage’ (Ahmed). It also ‘can be done through the promotion of the site in newspapers, magazines and television and through the Internet’ (interviewee Faraj). Faraj also suggests that publicity ‘can be through notifying friends and relatives about this site or through the distribution of leaflets in the streets’ (Faraj). Questions such as ‘Can I write what I want on Wikibooks?’ (Ali), ‘I saw “*Edit*” at the end of any subject. But I want to write a new subject. But, how can I do that?’ (Ali), and ‘It is difficult to find out how and where to start writing’ (Aziz) show that misunderstanding is common when it comes to contribution to Wikibooks. Such problems indicate that there is a need to create awareness about how and what to write. But before creating such awareness, there is a need to create public awareness. Moreover, these questions indicate that users may not have accessed and read the help documentation, whether this is because they do not know that there is a help function they can use, or because they find it difficult to read and understand.

It appears that Arabic participants write to Wikibooks mostly about subjects relating to the history of their civilisations, Islam, human rights, and politics. They feel obligated towards their society and the world, and seek to provide accurate and complete information about these topics to advance their communities (Ahmed, Abdul, Ali, Aziz, Essam, Faraj, and Omar).

Some Arabic users are not aware of the nature of open content. Ahmed reports that ‘[he] personally know[s] many authors, who want to publish their work, but don't want their texts to be edited by some irresponsible users’. Furthermore, others have mentioned to him that they are not satisfied because ‘they are not having credit for their work’ (Ahmed); and hence Ahmed suggests that a new policy be introduced into Wikibooks that allows users to add PDF files of their books. This suggests a lack of awareness about the nature of collaborative activities in Wikibooks. When attempting to understand such evidence of lack of awareness, it can be argued that the educational system contributes to such an issue. Education systems and schools play a significant role in easing access to open educational materials. For example, Ali mentions that his school does not support the use of ICT and wikis in learning and teaching activities (Ali). Moreover, ‘wikis are being used in teachers’ training programs but they do not go into the depth of it’ (Ali). Thus Ali suggests that ‘expanding these sessions will be useful. This suggests that even with the implementation of procedures to deal with lack of awareness, such procedures are not sufficient to inspire teachers by letting them know about the benefits of wikis in their educational practice.

Contributors appear to believe that once teachers are trained to use wikis, and have the chance to encourage their students to contribute to open educational resources, providing schools/homes are equipped with PCs and connected to the internet, students will contribute. For example, Ahmed anecdotally thinks that ‘many university students are willing to work with it if they know how; and I think this is the case for many people. Having their name as contributors (without having it copyrighted for them) will encourage many writers to publish their books as open resources’ (Ahmed). This also suggests that both recognition and publishing would motivate students to write for OER. Writing for Wikibooks and discussing topics allow students to ‘learn and gain more experience’ (Chaaban). This suggests that participants in Wikibooks, or perhaps any OCLA, want to be rewarded for their efforts; and such rewards vary just as individuals vary. These rewards include not only the sense of learning, but also opportunities for peer recognition and international publishing. Therefore, in creating awareness and publicity for these kinds of projects, providers should give attention to benefits that individuals would gain from their contributions.

Technical difficulties and technical solutions

In English regions

Technical issues play a significant role in contribution to Wikibooks. Adrian, a Wikibooks’ administrator, mentions that ‘most problems [he] received were technical’ (Adrian). He asserts, like any general new Wikibooks user, that the ‘syntax used in a wiki to produce formatted output can be difficult to learn. It's almost like trying to learn HTML for creating webpages’ (Adrian). As Mark points out, ‘there are a lot of things you can do in a word processor and not in HTML or WTML, which [are] not easy for newcomers to administer’ (Mark). Mark stresses that ‘there should be a word-processor type of interface for editing/making the books’ (Mark).

Moreover, ‘WYSIWYG [What You See Is What You Get] tends to become What You Want is What You Do Not Get Easily’ (Ronald). Ronald also suggests that editing tools are primitive and do not satisfy users. Although ‘the wiki editor has been somewhat improved’ (Steve) and is ‘intuitive and easy to use’ (Clinton), there are still people who ‘hope [to] have better editing tools that are focused on editing textbooks’ (Roy). It is believed that ‘WYSIWYG is coming for MediaWiki ... [which] should be the mantra’ (David), as part of the Wikipedia Usability project (Roy). However, these editing tools are more suitable for Wikipedia than Wikibooks, which signals the need ‘to work on tools that are specific to Wikibooks and editing textbooks’ (Roy).

Help and assistance in editing are essential, especially for new-comers to Wikibooks. For example, Susan, ‘found it very counter-intuitive’ to find out how Wikibooks works (Susan). For those who ‘are new to Wikibooks and would like assistance in editing’ (Adrian), administrators usually provide help (Adrian, Susan, Philip, Roy). This is why when Clinton ‘asked for technical help, and the reply was relatively prompt and useful’ (Clinton), there was not ‘much trouble’ (Roy).

It appears that Wikibooks users ask for personal assistance from Wikibooks' administrators because the help documentation section is not easy enough and/or not easily reachable by users. Adrian points out that 'help pages are a bit out of date' (Adrian). Perhaps this is why Adrian used help documentation presented by MediaWiki.org. Although there is 'a book called "*Using Wikibooks*" that provides information on the processes used at the site' (Adrian), users may not know about it, perhaps because there is no "help" link to this book. Although there are some users who read help documentation to know how to use and write to Wikibooks, other users were proactive and practice contribution by trial-and-error experience, examining how existing pages were written (Adrian).

One of the main technical issues in open content is vandalism (Adrian). Steve argued that 'the current techniques in Wikibooks, with validated revisions being the immediately visible ones for most users, and the vandal protections in place, seem to cover everything [he] could think of' (Steve). Philip also argued that 'Wikibooks can be improved by having some kind of issue tracking system' (Philip).

Another technical issue is a table of contents (ToC). Users usually care about a ToC (David). Wikibooks needs to have tools to make creating and editing ToC easier (David). For example, Mark sheds light on how 'some Wikibooks do not let [users] edit the TOC' (Mark). The interface of English Wikibooks is 'intuitive' (Clinton) and 'one of the best *Wikimedia* ones and it works very well' (Mark).

What these comments reveal, is a user-base ready to take responsibility for organising, and even developing, its system. This is not however the case for all categories of user. However, it seems that support and help can provide solutions to issues such as lack of confidence to start writing and also issues relating to the writing processes, such as organising ToC or writing to and editing the contents. Such help should be up-to-date and also readable for different users according to their language. Although the language of documentation and help has not been addressed at length in this study, it is argued that any written work should be undertaken in the language of the target audience.

In Arabic regions

It appears that contribution to Arabic Wikibooks is minimal not only because of the lack of awareness, reported earlier, but also because of a lack of and/or restriction on internet access, although there is no problem of availability of PCs. Although Essam mentions that he has no technical difficulties, this is not the opinion of others. Abdul suggests that 'contributions be increased by expanding the internet coverage' (Abdul). He continues to explain that 'all schools and universities [in Algeria] are equipped with PCs but they are not connected to the internet' (Abdul). Similarly in Egypt, 'most computer labs are not connected to the internet' (interviewee Omar). This situation is not very different from Saudi Arabia. In Saudi Arabia, 'students have the PCs that are connected to the internet but they do not allow access to them' (Omar).

Sometimes the computer laboratory facilitators at schools are part of the problem. Omar, for example, mentions that 'many PCs at schools [in Egypt] are not being used because lab facilitators do not permit students to use them because these PCs are considered as personal property' (Omar). Economic barriers also play a significant role in hindering contribution. For example, Omar, as a teacher, stresses that 'we live in villages [in Egypt] where many do not possess computers' (Omar). Furthermore, interviewees continue to highlight that the table of contents of textbooks in the Wikibooks website 'do not have good structures to be used in schools. They need reorganisation' (Omar). Ahmed explains that structures of contents are 'more likely to be for extended articles rather than textbooks' (Ahmed).

It can be concluded then that technical issues are different in Arabic regions from those in English regions. English participants seem to be experienced in using wikis and interact with Wikibooks to create and reshape content; these kinds of interaction with wikis have raised issues such as those relating to the ease of use of the Wiki WYSWYG editor. In other words, English participants want their job to be made easier, especially while restructuring content (including ToC). Since they appear to be self-ICT-learners, they find that the help section requires more updating and it needs to be simple.

Arabic participants struggle with other technical issues, more related to access restrictions and lack of digital literacy. For instance, although some schools are equipped with PCs, these PCs are not connected to the internet or students are not allowed to use them. Moreover, Arabic participants also claim that many, especially those economically disadvantaged and those who live in villages do not possess computers and thus have no access to OER. Therefore, technical issues relate more to digital infrastructure (which of course leads to degrees of digital illiteracy), for many users in Arabic regions. This suggests that although the digital divide may contribute to the lack of contribution from Arabic individuals, issues relating to the social divide, where individuals are able to use computers and have access to the internet, but are not willing to contribute, should also be addressed. Again, programs that focus on dealing with lack of awareness and also providing solutions/tutorials for common technical difficulties, should focus on reasons behind inspiration in contribution to OCLA for different users, and meet their different needs.

Discussion

Simplistic generalisations about cultural behaviour are mostly inaccurate [80]. This is because culture and mind influence each other [81]. Therefore, it is recommended to bridge between macro-level cultural values and micro-level individual experience [82]. Cross-cultural studies focus on differences between cultural groups, by identifying how the “universals” look different across people in different cultures [83; 84]. It was impossible to understand an individual's motivation without understanding their context in which they live [85]. In the online and F2F questionnaires [29], the quantitative/ statistical analysis attempted to uncover motivation for (non-) contribution at the macro level. The results of quantitative analysis [29] have revealed that motivation vary across individualist and collectivist cultures. The results further reveal that teachers play a significant role, impacting upon the past experience of Wikibooks users, creating a readiness to accept and interact with electronic resources and activities in general. The level of ICT equipment in schools for instance contributes to the users' readiness to interact with open learning resources. These results indicate that both cultures and education systems play significant roles in users' orientation to open educational resources in general, and Wikibooks in particular, including the choices of approaching contribution or avoiding it. However, it remains unclear how the social contexts impact differently upon motivation.

However, it is often argued that ‘statistical associations and statistical models can never be sufficient to explain the causality [68, p. 97] – as reported [29]. To help overcome this, interviews were conducted to explore motivations at the micro-level of individuals: what stimulate and hinder them from contribution, and taking into consideration their individual/cultural values, attributes, and their social contexts including aspects within education systems. Indeed, this study has deepened the understanding in relation to some findings of the previous quantitative study:

- 1) What are the underlying explanations for any difference between the cultural groups?
- 2) How do Wikibooks users see themselves (explicit motivations) and their societies (implicit motivations)?
- 3) Why are there differences in subject preferences?
- 4) How do Wikibooks users see and report the technical aspects and difficulties of wikis?
- 5) What are the suggested solutions that interviewees provided and think they help increasing contribution to OER?

This interviews study has attempted to find deeper and more detailed answers to the questions above. This interviews study follows the call from Elliot and Thrash [86] who urge the need to recruit participants from different cultures. This interviews study has filled this gap in knowledge by using a qualitative approach to addressing approach and avoidance motivations across English and Arabic cultures in relation to volunteering to open educational resources. The interview texts were subject to coding and categorising of participants' responses to the interview questions. Categorisation enabled some degree of quantification of the qualitative data. The distribution of interviewees' responses across the codes is based on interpretation of interviewee statements. The qualitative data analysis for these interviews suggests that culture impacts differently upon the motivation of individuals.

Evaluation reveals that while individualists are more intrinsic and self-oriented, collectivists are more extrinsic and others-oriented – as reported in the findings presented in Tables 3, 4, 5 & 6. The largest percentage for both cultures (English and Arabic) to write to Wikibooks was information-sharing values (Values). While Arabic participants appeared to be motivated more by obligation (Social), English participants were motivated more by learning (Understanding), enhancement (Enhancement) and recognition (Career). These results are consistent with Finkelstein's [87] findings: collectivism has strong positive correlations with the Values and Social motives, while individualism is positively related to Career motives and had significant correlations with Values, Understanding, and Enhancement motives. The high level of enhancement for both cultures (English and Arabic) can be explained by the view that it is a universal foundation.

In the current qualitative study, English participants in the online interviews reveal their enjoyment of contribution to Wikibooks. This can perhaps be explained by the suggestion that Westerners tend to express their happiness more than Easterners [88]. It is argued, however, that enjoyment in any activity is a significant factor in sustaining an activity – especially if such an activity occurs on a voluntary basis. Thus, OCLA designers should its playfulness to suit different individuals.

Inglehart [89] argues that volunteers in wealthy countries are motivated by secular/rational values, while volunteers in poorer countries are motivated by more traditional values. This may help to explain why English participants were motivated by rational motives such as learning, enhancement, and career while Arabic participants reported being motivated by obligation and problem solving motives. Similarly, previous research [90; 91; 92; 93; 94] highlighted that collectivist societies expect to help others, meet the expectations of in-group members, and sacrifice their personal interests for collective interests, findings from interviews analysis do agree with these previous studies. Since culture enters the motivation picture [91, p. 385], this suggests that OCLA that are designed for individualist OER read-writers should make clear the different benefits that participants may gain from their participation. For collectivist OER read-writers, OCLA should be designed to solve problems related to their communities.

The rational choice of a given behaviour depends on mental processes that can be classified into internal and external: for internalists, beliefs, desires, and preferences motivate behaviour, while for externalists, actions can be explained instrumentally [95], but in either case, behaviour is a result of the interaction between oneself and society [96]. Participants in the interviews were not only motivated by enjoyment, the value of knowledge, voluntarism & freedom, or helping others, but also contributed to Wikibooks for potential financial gain, career, enhancement, obligation, and recognition. Such a result is important when designing any OCLA: any activity should meet different OER read-writers' unique needs.

Although it is believed that open educational resources can bridge the educational and digital divide, there are some actions needed to reduce the social-digital divide between learners and teachers [97]. Investment in education in general and well-planned policies to reduce digital illiteracy rates are crucial [98]. Lane [97] argues that the attempts of teachers to mediate interactions between students and learning resources too often ignore the wider social and cultural settings. Analyses of the interviews presented in this paper show that there are minimum requirements to bridge the gap: 1) teachers themselves need to be technologically skilled; 2) teachers need to encourage learners and build their skills for lifelong learning – by which they encourage the use of OER; and 3) the education systems need to be ready for OER by developing appropriate curriculum and equipping schools with computers connected to the internet. Indeed, both instructors and curriculum designers to understand and assess learners' needs. Although both developing and developed countries are considered reaching established positions in ICT policies [99], economic, social and cultural considerations still have to be taken into account [100]. The current interviews study revealed that the social divide may play more of a role in hindering contribution than the digital divide. In other words, although many are able to use ICT, few are willing to participate actively in any OER – a matter that needs creating the awareness of OCLA benefits.

The extension of OER motivations framework adds a strength to the motivation theory, as it helps to specifically identify the most significant motivations including: 1) information sharing; 2) obligation; 3) enhancement; 4) value of knowledge; 5) problem solving; 6) enjoyment; 7) recognition; 8) learning; 9) value of freedom; and 10) writing skills. Identifying these different motivations helps promote participation in OCLA by elaborating more on the benefits that individuals may gain from their participation – each according to their needs. It must be noted that designing the activities and messages that involve objectives should help meet the above motivations. The awareness of these significant motivations helps educators to promote participation: teachers may ask students (obligation) to participate (information sharing) in content. Teachers need to demonstrate to students that each individual's knowledge is unique (value of knowledge) because it is constructed according to how an individual sees their world, and how they respond to its problems (problem solving). This will also help develop their skills in understanding knowledge (learning), and improve their communication skills to help convey their knowledge (writing skills). This would also develop their confidence to express freely their thoughts and ideas (value of freedom). By sharing ideas and discussion with others, individuals become recognised (recognition); and so at last, they enjoy the whole process and develop their lifelong learning skills (enjoyment); and thus might enjoy sharing information out of the class context. Although both recognition and publishing were not of high importance to interviewees, they indicated strongly that others might contribute because they want to be recognised and to get their work published.

Results of interview analyses revealed however that while Arabic interviewees saw themselves as holding collectivist values (obligation and problem solving), they saw others within their societies as holding more individualistic values (learning, recognition, and publishing). There is however, to a large extent, symmetry between how English interviewees saw their motivations and motivations of other individuals within their societies (enhancement, learning, recognition, and enjoyment) – a finding that is consistent with previous research [101].

This interviews study contributes to the knowledge gap: more specifically, while the application of SDT across cultures treats all individuals as the same, regardless of their culture [102, p. 435], results of the interviews suggest that there are differences between intrinsic and extrinsic goal orientations across the English and Arabic cultures. Regardless of these differences, as discussed above, individuals from each culture, to some extent, are motivated by the same goals (but with different weightings). Such multiple reasons for motivation provide power to the process of contribution to OER in general.

Individuals usually balance between the cost and the expected values of their behaviours. Indeed, unless the benefits exceed the cost (in terms of efforts and time), individuals will not contribute. [103; 104]. This means that users of OER must have sufficient incentives to motivate OER read-writers.

In general, regardless of the cultural differences between perceptions of Arabic and English interviewees in relation to their motivation and the motivations of others, the significant approach motivations were information sharing, learning, enhancement, and recognition. There were also similarities in the significant avoidance (or effort reduction) reasons between English and Arabic interviewees, including technical difficulties, lack of confidence, social responsibilities and time constraints and other interests that distract them from contribution. There is another interesting and significant difference evident from the findings. While English participants want teachers and instructors to adopt wiki technology in their learning and teaching activities, Arabic participants remain dissatisfied because teachers are technically unskilled, and that education systems hinder the use of ICT in schools and universities. While the strategy for English individuals should focus on opening minds to the potential benefits for teachers, students, learners, schools and the education system as whole, the strategy for Arabic individuals is more about creating a readiness for the use of OER, through teachers training in different computer skills, educating them in how to integrate ICT into teaching and learning activities.

To conclude, the findings of online interviews analysis reveal that there are differences in reasons for contribution (approach) to Wikibooks between English and Arabic interviewees. These differences can be understood within 4 dimensions:

- 1) **Independent selves versus interdependent selves:** This dimension explains why independent English interviewees are motivated by learning, enhancement, recognition and enjoyment (rational values of self-benefits), while interdependent Arabic interviewees are motivated by obligation and problem solving motives (traditional values of collective benefits).
- 2) **Intrinsic versus extrinsic values:** English interviewees are more motivated by intrinsic values such as enjoyment, learning, discussion, helping the disadvantaged, and belief in freedom and knowledge; while Arabic interviewees are more motivated by extrinsic values such as obligation, career, recognition, and problem solving.
- 3) **Self-reflection versus system-reflection:** While English interviewees are more hindered to contribute to OER due to issues related to themselves, Arabic interviewees are hindered to write to OER due to issues relating to their surrounding environment.

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Appendices

Appendix 1: Percentages of reasons for contribution to Wikibooks for English and Arabic interviewees

Motivations	Frequencies (Freq.) and percentages (%) ¹				Total Frequency	Relative percentages ²
	Arabic		English			
	Freq.	%	Freq.	%		
Career	5	4.7	6	3.1	11	3.7%
Community support	3	2.8	5	2.6	8	2.7%
Discussion	1	0.9	8	4.2	9	3.0%
Rewards and financial gains	4	3.7	3	1.6	7	2.3%
Enhancement	8	7.5	18	9.4	26	8.7%
Enjoyment	5	4.7	13	6.8	18	6.0%
Help disadvantaged	2	1.9	7	3.7	9	3.0%
Help others to learn (information sharing)	19	17.8	31	16.2	50	16.7%
Increasing the quality	4	3.7	2	1.0	6	2.0%
Lack of resources	4	3.7	3	1.6	7	2.3%
Learning	2	1.9	16	8.3	18	6.0%
Obligation	17	15.9	6	3.1	23	7.7%
Publishing	0	0.0	5	2.6	5	1.7%
Recognition	4	3.7	15	7.8	19	6.4%
Request	0	0.0	4	2.1	4	1.3%
Problem solving	10	9.4	7	3.7	17	5.7%
Use of spare time	2	1.9	7	3.7	9	3.0%
Value of freedom	4	3.7	10	5.2	14	4.7%
Value of knowledge	7	6.4	15	7.8	22	7.4%
Value of voluntarism	3	2.8	1	0.5	4	1.3%
Writing skills	3	2.8	10	5.2	13	4.3%
Total	107	100	192	100	299	100.0%

1 Frequencies (Freq.) and percentages (%): Percentages were calculated based on the total frequencies of each cultural group.

2 Relative Percentage was calculated from the percentages of Arabic and English cultures combined.

Appendix 2: Percentages of reasons for non-contribution (or effort reduction) to Wikibooks

Amotivations	Frequencies (Freq.) and percentages (%) ¹				Total Frequency	Relative percentages ²
	Arabic		English			
	Freq.	%	Freq.	%		
Amount of efforts needed (and laziness)	5	9.8	4	12.1	9	10.7%
Knowledge is unappreciated	0	0	4	12.1	4	4.8%
Entrance barriers	0	0	1	3.0	1	1.2%
Lack of awareness of Wikibooks	2	3.9	0	0	2	2.4%
Lack of confidence and lack of knowledge	5	9.8	8	24.3	13	15.5%
No financial rewards	1	2	1	3.0	2	2.4%
Other interests	13	25.5	2	6.0	15	17.9%
Poor quality content	2	3.9	1	3.0	3	3.6%
Vandalism and openness	1	2	0	0	1	1.2%
Responsibilities and time constraints	9	17.6	3	9.2	12	14.3%
Selfishness and free riding	7	13.7	0	0	7	8.3%
Technical difficulties (no technical help)	6	11.8	8	24.3	14	16.7%
Valueless efforts	0	0	1	3.0	1	1.2%
Total	51	100	33	100	84	100.0%

1 Frequencies (Freq.) and percentages (%): Percentages were calculated based on the total frequencies of each cultural group.

2 Relative Percentage was calculated from the percentages of Arabic and English cultures combined.

Appendix 3: Percentages of interviewees' perception of others' reasons for contributing to Wikibooks

Motivations	Frequencies (Freq.) and percentages (%) ¹				Total Frequency	Relative percentages ²
	Arabic		English			
	Freq.	%	Freq.	%		
Help others to learn (information sharing)	2	20	10	24.4	12	23.5%
Value of knowledge	1	10	1	2.4	2	3.9%
Enhancement	1	10	3	7.3	4	7.8%
Learning	4	40	9	22.0	13	25.5%
Publishing	1	10	1	2.4	2	3.9%
Recognition	1	10	4	9.8	5	9.8%
(Business) collaboration	0	0	2	4.9	2	3.9%
Financial reward	0	0	1	2.4	1	2.0%
Enjoyment	0	0	3	7.3	3	5.9%
Increasing the quality	0	0	3	7.3	3	5.9%
Discussion	0	0	2	4.9	2	3.9%
Demonstrate expertise	0	0	2	4.9	2	3.9%
Total	10	100	41	100	51	100.0%

1 Frequencies (Freq.) and percentages (%): Percentages were calculated based on the total frequencies of each cultural group.

2 Relative Percentage was calculated from the percentages of Arabic and English cultures combined.

Appendix 4: Percentages of interviewees' perception of others' reasons for non-contributing to Wikibooks

Amotivations	Frequencies (Freq.) and percentages (%) ¹				Total Frequency	Relative percentages ²
	Arabic		English			
	Freq.	%	Freq.	%		
Feeling of demand (amount of effort needed)	2	4.7	3	4.3	5	4.5
Lack of writing skills	3	7.0	5	7.1	8	7.1
Lack of technical skills	3	7.0	7	10.0	10	8.5
Selfishness and free riding	1	2.3	5	7.1	6	4.7
Lack of awareness	8	18.6	13	18.6	21	18.6
Vandalism	2	4.7	2	2.9	4	3.8
Copy left	1	2.3	3	4.3	4	3.3
Lack of recognition	1	2.3	0	0.0	1	1.2
Effort is useless	1	2.3	2	2.9	3	2.6
Lack of valuing knowledge and information sharing	6	14.0	8	11.4	14	12.7
Lack of valuing voluntarism	0	0.0	5	7.1	5	3.6
No reward	0	0.0	5	7.1	5	3.6
Lack of confidence	1	2.3	5	7.1	6	4.7
Poor quality	3	7.0	1	1.4	4	4.2
Time constraint	1	2.3	3	4.3	4	3.3
Other interests	2	4.7	0	0.0	2	2.3
Other barriers	4	9.3	3	4.3	7	6.8
Infrastructure and digital barriers	4	9.3	0	0.0	4	4.7
Total	43	100.0	70	100.0	113	100.0

1 Frequencies (Freq.) and percentages (%): Percentages were calculated based on the total frequencies of each cultural group.

2 Relative Percentage was calculated from the percentages of Arabic and English cultures combined.