

## REVIEW ARTICLE

### Digital literacy: a Palestinian refugee perspective

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*(Received: 10 July, 2017; final version received: 4 January 2018)*

This paper is the first attempt to explore digital literacy in the specific context of the Palestinian refugee community in the Middle East by looking at the cultural specificity of digital literacy theorising and practice, by analysing current digital education policy in the countries hosting the Palestinian refugee community and by documenting the digital environment of the Palestinian refugee. It identifies the distance or deficit between the community's current access to digital literacy education, appropriately defined, and its digital environment, needs and opportunities. Finally, the paper provides a brief agenda for further empirical research.

**Keywords:** literacy; digital literacy; Palestinian refugee; Arab culture; Arabic; ICT; e-learning

#### 1. Introduction and rationale

We should start with a definition of 'digital literacy', a provisional definition as a point of departure. A very comprehensive, abstract and generic definition might be 'those skills, abilities and attitudes that enable people and communities to survive, flourish and grow in an environment that is increasingly digital'. This is unlikely to be culturally neutral – no definition ever will be – and that issue is the crux of this paper. Digital literacy is clearly not the same everywhere since the digital technology in use, the cultural practices and the economic activity all vary from culture to culture, country to country and region to region.

We argue that the idea of digital literacy has not been developed, discussed or defined sufficiently in the education systems of the Middle East and that this paper will help to document the nature of the digital opportunities, the digital challenges and the digital resources facing Palestinian refugee communities and thus support a specifically Palestinian conception of the theory and practice of digital literacy. As we know more about these, we can begin to develop ways in which policymakers, teachers and educators can respond in the classroom and in the community.

This paper grows out of the author's academic and professional work in the region, primarily with the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) (Abdul-Hamid *et al.* 2015), explained later, with the British Council and universities in Jordan and West Bank. It is a preliminary work to scope out how research work might explore discrepancies between the digital environment,

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the digital opportunities and the current educational policies and the strategies to address them. However, constraints, conditions and resources in the region do militate against timely, rigorous and comprehensive fieldwork, especially given the complex and rapidly evolving phenomena.

The Palestinian refugee community is broadly defined, to quote UNRWA's mandate, as the community of people whose 'normal place of residence was Palestine during the period 1 June 1946 to 15 May 1948 and who lost both home and means of livelihood as a result of the 1948 conflict'.<sup>1</sup> UNRWA also provides services to 'refugees and people displaced by the Arab-Israeli conflict of 1967 and subsequent hostilities',<sup>2</sup> and in practice this means its geographical remit is Jordan, Gaza, West Bank, Syria and Lebanon, the five fields (Al Hussein and Bocco 2009). Clearly, we are making generalisations about the composition and characteristics of the Palestinian refugee community, even as limited to definitions used by UNRWA. There are differences and divisions across and within the communities – their legal rights and responsibilities, for example, in owning property are different; some live in camps whilst others live in towns and so on. However, our aim is to explore the implications for educational policy. What might be a simplification or generalisation in academic terms might still be the basis for policy formulation or professional practice. We could argue, for example, that if we are addressing the needs, behaviour or attitudes of *conservative* Palestinians, whatever that might mean, then we are necessarily also addressing the needs, behaviour and attitudes of *progressive* or *liberal* Palestinians because the latter are embraced by whatever covers the former; we need only worry for practical purposes about the bounds or the limits. Also the digital environment of the Palestinian people and communities, whilst uniquely their own (Rabaya'h and Mansour n.d.), shares attributes and activities with many other parts of cyberspace, specifically those shaped by global neo-liberalism, corporatism and capitalism (Junka-Aikio 2010) – to which the more critical aspects of digital literacy work are a well-documented response (Lally and Traxler 2016).

So to reiterate, the paper grows out of concerns that the increasingly digital nature of all of our lives means that we need changed and increasingly digital skills, access, attitudes and opportunities in order to create, express, understand, explore, earn and flourish in our social, academic, economic, political and personal lives, amongst our families, friends, communities and colleagues. However, the digital technology that provides these challenges and opportunities does embody language, values, gestures and culture that are overwhelmingly Anglophone American; it is largely under the control of global corporations and thus alien to many of the world's cultures and communities. This implies that empowering people and communities requires culturally specific and culturally sensitive definitions of digitally literacy, rather than appropriating those generated outside the region and outside the community. However, this is not to imply that culturally specific and culturally sensitive definitions can adequately reflect and respond to the diversity, fluidity, complexity and contradiction with communities and individuals, only that such definitions might form a better basis for educational policy and practice. This would promote resilience and responses in the face of external challenges and conditions, from corporate, Anglophone and Western sources, alongside the growth of a robust indigenous digital culture.

Moreover, Palestinians in the five UNRWA fields live in very specific circumstances, for example the blockade and siege of Gaza (Dahan 2012; Tawil-Souri 2012), the war and displacement in Syria (Fagen 2009), the instability and unrest in Lebanon (Bortolazzi 2011; Salem 2006; Sharp *et al.* 2006; Suleiman 2006), the constant

influx of different refugees and displaced persons in Jordan (Stevens 2016) and the occupation and control of Palestine (Newman 1989; Tawil-Souri and Aouragh 2014; Yiftachel 2005). This suggests that very specific digital skills, attitudes and choices are needed (as are improved availability, ownership and control of infrastructure, devices, networks and services, but these are not the focus of this paper). These might include the ability to learn from mobiles whilst stuck at military checkpoints (Shalan and Abdelnour 2014), the need to access external online markets and crowdsourced funding, the ability to maintain schooling during air strikes or curfews,<sup>3</sup> the ability to preserve culture and language whilst accessing international online resources and communities, the need to build an online cultural identity as physical cultures are threatened, the ability to respond to Israeli control of spectrum and infrastructure (Tawil-Souri 2012) and the need for digital criticality in the face of Internet radicalisation (Wright 2008).

## **2. Some background to digital literacy**

In order to explore the relationships between the Palestinian refugee community and the growing discussions of digital literacy, we will use the digital literacy agenda within UK higher education. This is not intended as a comparison or meant to imply a deficit but is merely a way to identify concepts and themes. Several sources (Beetham 2010; Belshaw 2011) review other European and international initiatives, programmes and endeavours that have run parallel to the UK discourses on digital literacy.

This agenda has over the last 5 years been driven and articulated by the e-learning programme within JISC (previously Joint Information Services Committee, now just JISC).<sup>4</sup> This has been an ambitious and coherent campaign to engage UK higher education, from grass-roots teaching staff to university managements, in discussion, development and publication, in order to formulate a consensus about the kinds of attitudes, skills and capabilities that students will need to have to get the full benefit of the technology and resources available to support their learning, both initial and lifelong. Digital literacy has been defined as

the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this Process. (Martin 2005:135)

A pragmatic approach to definition identifies what we expect of these constituent capabilities, for example:

- they are a pre-requisite or foundation for other capabilities;
- they are critical to an individual's life chances;
- they are essential to the making and sharing of culturally significant meanings;
- as a result, there is or should be a society-wide entitlement to these capabilities at some level. (Beetham 2010:1)

The programme has also documented the differing ways in which UK higher education institutions (HEIs) have defined and supported the acquisition of these skills and capabilities within their own mission and demographics and has sponsored projects to promote further development, publication and dissemination.

A handful of observations will suffice for the current discussion.

Firstly, the skills and capabilities related to the use, exploitation and potential of popular mobile devices are only a subset of this larger agenda. However, it is recognised that they represent an increasingly significant part of a diverse and changeable ecology of the various digital technologies that might support learning but importantly a part where the loci of control and confidence has shifted away from lecturers within the temporal and spatial bounds of their institutions and towards their students, often outside the bounds of any institutions. This shift means that supporting any meaningful institutional and formal digital literacy agenda must transform the roles and responsibilities of teachers and lecturers, expanding these from just being authoritative subject experts facilitating transmissive and discursive learning to include learning *with* or even *from* their students. We could anticipate our later discussion by noting how culturally specific this may be, and how challenging to some parts of Palestinian culture, with a more traditional and didactic conception of teaching (a conception shared by many UK academics). So *mobile* is only part of *digital* but outside Europe, in the Middle East for example, *mobile* is the most significant part and the part that most challenges traditional teacher roles.

Secondly, the larger agenda represents an attempt to formulate a portfolio of comprehensive and generic attributes that might characterise graduates leaving universities in the coming years. The discussions within this emergent UK digital literacy community have resonated with other older discussions across the higher education sector about the nature of so-called graduate attributes (Barrie 2004) or *graduate-ness*, part of an attempt to pin down the broad but defining features of the UK university experience and the nature of its *added value* and how it differs from training. All of these discussions have managed to define succinctly those attributes that relate to employment and employability but have struggled to be as precise about those other attributes that could characterise the digitally literate graduate in varied social, religious, civic, cultural, political and community settings. So developing a Palestinian digital literacy curriculum problematises the role of higher education and the role of universities, in a way that resonates with discussions in the UK.

Thirdly, the digital literacy discussions have been informed and influenced by earlier discussions. Being digitally literate in the broadest sense implies making ethically informed choices and decisions about digital behaviour, for example about digital safety, digital rights, digital property, digital identity and digital privacy. There are also consequences in defining digital literacy for definitions of *digital divides* and notions of *digital inclusion*, moving away from an earlier emphasis on ownership or access. All of these have implications for ideas about entitlement and equity. Discussing digital literacy draws in many other issues. Digital inclusion is critically implicated in all other inclusion determinants since communication technologies operate as mediators to accessing and utilising online resources and services (Nansen *et al.* 2013). These are quite culturally specific issues. UNRWA wholeheartedly espouses and enacts notions of inclusion and human rights in its work, but there are occasions when these uncomfortably confront values in the more traditional Muslim communities; one can now imagine these situations being re-enacted in a digital context. Digital literacy is also a cultural attribute resting on the notions of literacy, learning, education and knowledge, local, albeit often tacitly, to a specific culture or subculture (Halstead 2004). One of the challenges for educators is the increasing fluidity and confusion as more cultures and subcultures emerge in cyberspace and phone space, orthogonal to those in geographical space (Kuntsman & Stein 2011; Traxler 2009).

Fourthly, digital literacy discussions have been skewed or confused by the exact role and significance of basic IT skills. These are important attributes, but because of their concrete and utilitarian nature they are easy to define, perhaps at the expense of attributes that are more abstract, more fluid or more contentious. Other attributes can be grouped under the headings *attributes and practices* and depend on access, creating a hierarchy of abstraction or dependencies, phrased in the individualistic language of the West at odds with the more collectivist attitudes of other cultures.

Attribute	‘I am ...’
Practices	‘I do ...’
Skills	‘I can ...’
Access	‘I have ...’

(Beetham and Sharpe 2009)

Discussion of Palestinian digital literacy must meaningfully explore and embrace livelihoods and local labour market conditions and trends in the Middle East, alongside the higher abstractions and attributes. However, what is significant in the European literature of digital literacy is the absence of much discussion about the balance or distinction between, on the one hand, compliance and conformity, and, on the other hand, criticality and activism, between merely understanding the digital situation and actively seeking to resist it or change it. Compared to most European or American contexts, this is a crucial difference for the Palestinian refugee communities in the region, where these issues are starker and immediate.

Finally, the digital literacy discussions in the UK have also, however inappropriately, drawn on the terminology and literature of *digital natives* and *digital immigrants* (Prensky 2001), implying that digital literacy may be a generational attribute. A more evidence-based classification – in fact a spectrum – runs between *digital visitors* and *digital residents* (White and Le Cornu 2011), attempting to use digital habits and attitudes as a way of understanding the extent to which digital technologies can underpin education and training by providing archetypes or personae that making reasoning about attitudes and behaviour more manageable. Whilst these categories might be generational, they are also a function of local infrastructure, local culture and local history and need reworking in different cultures and environments. Empirically developing similar archetypes within the context of the Palestinian refugee community would be a useful foundation for policy and practice.

We should add that much of this digital literacy debate in the UK has focussed on the idea of *digital identity* (and consequently on *digital community* and *digital culture*). These notions must necessarily play out differently in the cultures of the Middle East, specifically in relation to Muslim and Arab ideas (Mandaville 1999; Wheeler 2002) – as opposed to Western and Christian ideas, which formed their historical backdrop – about propriety and decorum and also play out differently within the Palestinian community, specifically the capacity of digital technology to preserve Palestinian culture (Tawil-Souri 2009) amongst its beleaguered, embattled and dispersed physical communities. This is of course to oversimplify the various communities but illustrates aspects of the differences involved.

Looking for evidence of this, one could explore the cultural differences as articulated by the work of Hofstede applied to various nations of the region (Al-Amleh

2014; Alkailani, Azzam, and Athamneh 2012; Hamdoun Al-Soufi 2005; ‘Mustafa’ 2011; Weishut 2012) – the consensus depicts Arab culture as more hierarchic, static and conservative, more risk-averse and collectivist than many Western European societies but with the usual caveats about granularity, generations, gender, social class and the specifics of the Palestinian situation in the context of wider Arab norms. This is of course essentialising but intended only as a starting point for policymakers and educationalists, who might see culture as difficult to calibrate and discuss and thus better ignored. Many apparently successful pedagogic techniques, often embodied in educational technology, for example games-based learning, rest on implicit assumptions about teachers and learners that are culturally specific.

As with many established ethical systems and codes of conduct, there is confusion and uncertainty about how these codes and systems apply to the digital world, the extent to which codes about appearance and visibility relation to digital images and even digital avatars. There is also, as experienced by the author whilst working in Gaza, a worry that this digital world is irredeemably a Trojan horse for Western (Christian) values.

Before leaving this introductory discussion of digital literacy drawn from UK university contexts, it is worth making a comparison with similar Palestinian contexts. An EU Erasmus+ project, METHODS<sup>5</sup> comprises universities in the occupied West Bank, namely An-Najah National University, Birzeit University, Palestine Polytechnic University and Bethlehem University, plus universities in Jordan, namely the University of Jordan, the Hashemite University, Jordan University of Science and Technology and Al-Zaytoonah University of Jordan. The object of the project is to introduce more technology enhanced learning (TEL) into local universities and thus *modernise* teaching and learning. In practice, the project team is unclear whether *modernise* will mean *Westernise* and whether, in turn, *modernise* will mean *Westernise according to notions of TEL prevalent in the Western universities of the 1990s*. These two examples, Gaza and METHODS, exemplify potential extremes as Palestinians educators confront digital technology – to unthinkingly reject it or to unthinkingly accept it – and point to the need for a critical digital literacy curriculum developed within the Palestinian community, able to build on the underlying principles.

### 3. Digital literacy and Arab culture

Attitudes to digital literacy framed in the way we are describing, including criticality, originality, creativity and expression, derived from Western values of individual self-expression, have the potential to confront the attitudes to criticality, originality, creativity and expression that inform Palestinian and regional culture, and its institutions. *Times Higher Education* (THE 2015a) reported on other aspects of this, in universities and in intellectual life:

Muslims need to steer a path between two opposing dangers when it comes to higher education and science. One is the ‘lame duck’ mentality, which frames answers to questions ‘only in terms of “catching up” with Western models of knowledge production, professionalism, quality assurance, critical thinking, research, liberal arts’ and so on. The opposite trap is ‘the “cosy corner” mentality, which prefers to occupy a parochial corner in which everything which is not explicitly “Islamicised” is seen as threatening or deviant’.

A specifically Palestinian digital literacy curriculum, the prerequisite for effective digital learning, must also recognise the concrete specifics of the Palestinian learner's environment; a visiting British academic working at Birzeit University observed of students

Those who failed to do their course reading were usually not apathetic, but had had their lives profoundly disrupted by checkpoints, arrests in the family, demonstrations dispersed by tear gas or even the violent deaths of friends. (THE 2015b)

Other research (Buckner and Kim 2012) identifies similar stresses and their educational impact but promotes gaming as a means of improving the *executive functions* that are undermined by the environmental stress. One element of a Palestinian digital literacy might be the contribution of digital technology to a very local notion of psychological well-being. However, there is still a literature that treats information and communication technology (ICT) as globally standardised, apolitical and culturally neutral (e.g. Shraim & Crompton 2014; Shraim & Khlaif 2010).

A recent study (Aouragh 2008) offers an insight into the increasing role of the Internet for Palestinians in the diaspora and studies the effects of these practices within the context of occupation and exile. Online political activism fills an important gap for what is absent offline. Through multisite fieldwork (Palestine, Lebanon, Jordan) this research demonstrated how the Internet gave birth to a Palestine identity in cyberspace and has altered the traditional tactics of activists. Online communication has strengthened social and political agency (Yerousis *et al.* 2015) and evoked a new type of media activism. This has been an important development, considering the stereotyped portrayals of Palestinians trapped as either terrorists or victims. Other studies explore the place of mobile technologies in the lives of local people (Hijazi-Omari and Ribak 2008), very much part of the growing literature of mobility (Urry 2007).

In the course of developing the UNRWA ICT Strategy, there were workshops, attended by teachers and advisors from the five fields, to collaboratively develop a strategy built on a shared understanding of basic contextual factors. In one organised by the author in Amman in December 2013, the participants worked on, 'what is Palestinian digital culture, what is digital identity for Palestinians, what is the digital world that Palestinians inhabit?' A complex and emotional plenary discussion followed with questions from participants that ranged from, 'did digital media represent an arena to consolidate, preserve, disseminate and promote Palestinian identities and culture?' to, 'was the idea of a Palestinian digital culture and identity merely a second-rate substitute and palliative for a physical culture and identity (in the absence of a *real* Palestinian state)?' This represents only one dimension of the complex relationship Palestinians have with the Internet; others have formed part of the *cyber intifada* (Aouragh 2003): 'It cannot be overstated how important the social impact of Internet is when physical contact is impossible' (p. 43).

A recent BBC broadcast, 'The battle of the e-Muftis', subsequently summarised online,<sup>6</sup> emphasised the role of digital media in the radicalisation of young people in the Middle East and documented attempts from within the Jordanian religious establishment to fight this radicalisation. Earlier pieces, for example 'How the battle against IS is being fought online',<sup>7</sup> give some background to the IS media campaign and quote Shiraz Maher from King's College London, having conducted the most comprehensive studies so far of the online activity of jihadists in Syria, as follows:

‘This is the most socially-mediated conflict in history,’ he says. ‘You literally have thousands of foreign fighters from all over the world using social media in order to convey the message about the jihad that they are fighting.’

Elsewhere in a piece entitled ‘Isis and what it means to be modern’,<sup>8</sup> BBC journalist John Gray makes the point that

Isis makes effective use of the internet to broadcast the brutal manner with which it deals with anyone judged to be an enemy. Isis’s savagery isn’t impulsive. Everything suggests it’s a strategy developed over a number of years. When it posts videos of people being beheaded or shot, Isis advances several of its goals – simultaneously inspiring dread in its enemies, teaching the communities it controls the dire consequences of departing from an exceptionally extreme interpretation of Islam and sowing chaos in the population as a whole.

The details and nuances of these remarks are clearly worth research but our argument here is that indigenous critical digital literacy could be a key component in the response to Internet radicalisation but only within a comprehensive digital literacy curriculum embracing skills, culture, ethics and learning. At the moment, however, as we shall see later, the national educational policies of the region do not recognise or address this issue.

#### 4. Arab culture and digital technology

In discussing digital literacy and Palestinian culture, we must recognise that the relationships between digital technology, especially the near-universal mobile phone, and the language, behaviour and culture of specific communities, in this case the Palestinian refugee community, are complex and dynamic and in some respects the digital literacy agenda is an attempt to make these relationships more explicit and more transparent. Mobile phones, and other digital technologies, are not just dumb conduits or containers for language(s) and culture. They transform languages and thus culture by perturbing the balance between mother tongues, vernaculars, *lingua franca*, global power languages within different specific communities; by creating or changing genres of writing, for example blogs, posts, tweets, pen-pal letters, graffiti, selfies, postcards, birthday cards, shopping lists, newspapers and books; by transforming the balance between the textual, graphical and audio content of language due to the relative *searchability*, specifically search engines and speech-to-text engines, altering the balance between forms and genres, making some more easy, some more difficult and by affecting the balance between the production, consumption of text and its various forms. This is taking place within the Palestinian refugee communities and any definition of digital literacy and any digital literacy curriculum must recognise, explore and respond to the living nature of their culture and languages.

However, these observations must be seen in the context of the global hegemony of US English, of US digital technology and of the prominence of American and European researchers and their universities in global rankings and prestige and, in our case, the relatively marginal status of Arabic, of Arab institutions and of Arab knowledge production. In relation to the Palestinian refugee community there is a need for empirical research to explore the impact of these facts.

We can identify aspects of the dynamics between language and mobiles. Language, and the social interactions around it, is the basic substance of education and

learning, and that education and learning are, in turn, basically the acquisition of new language, the language of the subject domain, the language of the teacher, the language of the profession, the language of the school or college, the language of the learning and the language of the learned. Learning and education are processes of acculturation and identity transformation and language is the medium by which this happens and by which it is expressed.

The impact of mobile digital technology on these is pervasive, subtle and profound. We see the mental patterns and processes embodied in the US technology imposed on a global audience. At a superficial level, many operating system icons (egg timers, wristwatches, waste paper bins, filing cabinets, floppy disks and diaries) display a specific cultural and generational heritage. We see US gestures embodied in the gestural interfaces of smartphones. Understanding these is part of finding a balance between the global and the local, engaging with the global knowledge economy whilst defending local customs and traditions, and a critical digital literacy curriculum is crucial in this complex digital world.

At the simplest level, mobile handset technology also impacts on language. The specifics of any device alter how people express themselves and which language they use, in our case, opting for English not Arabic messaging because of bigger message sizes (ASCII vs. Unicode), for US English not British English because of auto-correction and predictive text. In Arabic, due to the different number of characters available in an English and Arabic text message,

... Arabic characters are only recently available on mobile phones, and users are no longer required to work around this gap through Romanized spelling, although research indicates that a majority still chooses to. The encoding of Arabic dialect in written form, however informal, has great implications for literacy and its perception in the Arab world; in a covert way, EMC [Electronically Mediated Communications] is broadening the possibilities of what Arabic text can be. However, those who write in Arabic dialect must contend with the notion that the vernacular is less legitimate or refined than the more formal MSA [Modern Standard Arabic]. (Gordon 2011:5)

Users of speech recognition and dictation software, for example Siri or Dragon Naturally Speaking, find a linguistic bias since some non-standard dialects of English are rendered more accurately than others and most other languages are not rendered at all. We see the balance between different forms of expression, English versus Arabic, standard versus dialect, being perturbed by mobiles, and these represent the differential hurdles to learning with mobiles for different communities and point to a digital literacy that recognises the linguistic and cultural bias and distortion embodied in digital technology.

## **5. The digital curriculum of the Palestinian refugee community**

This account of the digital curriculum of those countries hosting the Palestinian community draws on the preparatory work for the ICT Strategy of UNRWA. It gives background to the progress and problems in thinking about digital literacy in countries hosting the Palestinian refugee community and the wider policy context. UNRWA

... is funded almost entirely by voluntary contributions from UN Member States. UNRWA also receives some funding from the Regular Budget of the

United Nations, which is used mostly for international staffing costs. The Agency's services encompass education, health care, relief and social services, camp infrastructure and improvement, microfinance and emergency assistance, including in times of armed conflict.

In education,

With 703 schools, 9 vocational colleges, 2 educational science faculties and 2 teacher-training institutes, [UNRWA] operate one of the largest school systems in the Middle East, with some half a million children enrolled.<sup>9</sup>

The Education Department schools, and Technical and Vocational Education and Training centres and teacher-training centres (in Amman and Ramallah), must each operate within the curriculum of the relevant host country. Given UNRWA's advocacy and adherence around UN goals, such as gender equality and freedom of speech, and the political and religious views of some host country governments, for example Hamas, the *de facto* government in Gaza, and Hezbollah, operating in south Beirut, this is problematic. A useful starting point is *Information and Communication Technology (ICT) in Education in Five Arab States* (Dennis *et al.* 2010), useful in its approach and general coverage and useful as both Jordan and West Bank are amongst the five states. After making remarks about the increasing improvement, capability and availability of ICT across the region, within the context of vastly different levels of *per capita* income, the report makes the following point:

The social movements that arose in 2011 in the Arab States have demonstrated the potential of ICT to play a catalytic role. Arguably, the Arab Spring ranks among the most significant informal ICT-assisted 'learning' phenomena in 2011, whereby thousands of youth used social media – accessed via their mobile phones – as a space for self-identification, self-assertion, contestation and mobilisation around democracy, human rights and civil liberties ... (Dennis *et al.* 2010, p. 5)

The phrase *Arab Spring* may now seem increasingly problematic but the point being made is about the comprehensive nature of digital penetration in Arab societies and the capacity of digital technologies to create and sustain communities in hitherto inconceivable ways (Zeid and Al-Khalaf 2012). This point is echoed in accounts of specific uprisings, for example the Jasmine Revolution in Tunisia (Wagner 2011). However, the Arab Spring is only one of the more recent manifestations of mobile social technologies to mobilise popular political discontent (Aouragh & Alexander 2011).

*Understanding the Arab Digital Generation* (Sabbagh *et al.* 2012) surveyed over 3000 digital users in nine countries including Lebanon and Jordan and defined the Arab Digital Generation (ADG), people aged 15–35 who are consistent users of technology – this is a *digital natives/digital immigrants* classification that needs much more data and greater critical analysis. This survey suggested that these young Arab Internet users numbered 10 million, rising to 13 million by 2014 – a rise of 11% annually, compared to only 7% for the world. Whilst the survey defined and represented the views and preferences of the region's digital elite, these views are nonetheless significant because they represent a growing segment of potential employers and employment and because they represent a demographic in the ascendant. In discussing the various social and cultural attributes and practices around ICT, the ADG report asserts that

What is particularly striking is that although the ADG is the best educated and most ambitious generation the region has yet produced, it rarely uses the Internet for education purposes. This is not for lack of desire or interest from the ADG's side. We know that youth in the region are seeking more technologically enhanced forms of education that will help them obtain employment and fulfil their goals. Rather, the fault lies with the education sector, which thus far has not provided the access or the Arabic digital content that this demographic craves.

The rest of the statistics, findings and observations are broadly in line with global expectations, filtered slightly through local and regional cultural sensibilities and practices. The survey reports widespread dissatisfaction on education across the region and its current use of ICT, saying, for example

- 29 percent believe the curriculum and teaching methods are poor
- 23 percent believe the quality of teaching staff is below par
- 29 percent believe the quality of education infrastructure (such as buildings, environment, classrooms, and equipment) is poor
- 40 percent believe that schools insufficiently prepare students for the job market

The report then makes sweeping and unsurprising recommendations about the need to digitise schools but adds

Nevertheless, technology is not an ingredient that policymakers can simply add to schools and expect to generate results.

Further recommendations all make obvious points and do not address the specific Palestinian refugee community context, nor make clear where the human and financial capacity will come from. Nor do they suggest how its impact and effectiveness can be measured and monitored. The recommendations do not come from education specialists. They are quoted here to illustrate the somewhat simplistic expectations, pressures and prescriptions on policymakers in the countries of the region.

The remarks about the nature of teaching are complicated by UNESCO statistics on teacher supply, observing that across Arab countries there are ongoing teacher shortages and specifically, 'Palestine will continue to face a teacher shortage until 2023, primarily due to the growing school-age population' (UNESCO UIS 2013).

The World Summit on the Information Society (WSIS 2011) targets on education and other related indicators provide useful but not wholly straightforward and possibly quite naïve benchmarks for measuring and monitoring, namely

Target 2. Connect all secondary schools and primary schools with ICT ...

and

Target 7. Adapt all primary and secondary school curricula to meet the challenges of the information society, taking into account national circumstances.

These benchmarks are backward looking and not necessarily meaningful as personal, mobile and portable devices replace and displace computers as the global and regional ICTs *par excellence* and as digital literacy and global online resources replace dedicated instructional packages. However, they do underline the discrepancy between the national policies and ideas represented by digital literacy.

## 6. e-Learning strategies of countries hosting Palestinian refugees

The Palestinian refugee community is spread across Syria, Lebanon, West Bank, Jordan and Gaza. In these five fields, its education and health are the responsibility of UNRWA. Alignment with the e-learning strategies of the host countries in the five fields is a constraint on any UNRWA strategy – including various restrictions relating to access to secondary, tertiary and vocational education (Shiblak 1996). UNRWA schools are constrained by host country regulations and Palestinian refugees are not accorded equal rights with host country nationals, Jordan being the most benign. The following sections document host country e-learning strategies, such as they are, to illustrate the distance still to be travelled.

### 6.1. Lebanon

The *National Education Strategy in Lebanon Vision Document*<sup>10</sup> talks about, ‘Education oriented towards the development of knowledge, skills, and attitudes needed for handling information and intense use of Information and Communication Technologies (ICT)’ (p. 1) in building a knowledge society. However, the Strategy does state that

Although the stated curriculum objectives have been rather ambitious and included building knowledge, attitudes, and skills for dealing with information and using it in learning, the curriculum content is limited in many aspects: (1) The curriculum is limited to information skills and does not stress the use of IT and communication in teaching other subject matter areas or in autonomous learning; (2) The current curriculum covers only Grades 7–12 at the rate of one class period every week; and (3) Informatics as a subject matter is not assigned any weight in school evaluation or in official examinations.

There is no ICT in the primary curriculum and various hurdles – for example infrastructure, curriculum and training – mean progress is slow and uneven in the secondary curriculum. ICT does not inform any of the other strands of the Strategy explicitly. The *National Educational Technology Strategic Plan – July 2012: Teaching and Learning in the Digital Age* defines the mission and purpose of using ICT in schools. This plan marks a first step in Lebanon’s journey toward technology integration in schools but is clearly aspirational and needs considerable resource and effort to operationalise. There is also a comparative account (Burns 2012).

### 6.2. Jordan

Jordan gets a good press for its use of ICT in the education sector, primarily because of the Jordan Education Initiative (JEI), dating from 2003. It was a classic response to perceptions of the tensions between global trends and the national economic portfolio. The economic analysis and policy prescription will be familiar from elsewhere, for example Latvia or Ireland. One report (USAID 2008) identified four primary objectives of the JEI. None of these recommendations directly addressed change in education itself, only the processes and resources to bring it about. In the words of another account:

JEI was conceived as a fast track project first executed across a 100 specially selected ‘Discovery Schools’. A small project management office (PMO) set up and, in consultation with the Ministries of ICT and Education, PMO developed a

policy of holistic education change electronic content, teacher training and technology. (p. 2 of an informal report from Cisco)

The details of resources, management and implementation are clearly unlikely to be relevant or transferable, but the underlying philosophy, using exemplar schools to somehow drive wider transformation, is also problematic and assumes a trustworthy trajectory from innovation to policy via evaluation and evidence, and assumes resources ready for allocation. Parts of the USAID evaluation of JEI assumes that experimentation will ensure that innovation and thus change will just happen and that only infrastructure and hardware are the barriers to increased learner engagement and activity. The consequences for any digital literacy curriculum for Palestinians in Jordanian schools – or outside them – are a long way downstream of any current developments.

### 6.3. Syria

A reported talk by the Syrian Ministry of Communications and Technology and the Syrian Computer Society seemed to be outlining a proposed national ICT strategy, not one solely for education but suggesting such a strategy had not previously existed. This was in May 2006 in Beirut. The statistics given for Syria are comparable with neighbours in the region, for example Egypt, Algeria or Morocco, but further progress is unlikely to have been made. A 2009 report, *eLearning in Syria*,<sup>11</sup> reviewed practices, possibilities and provision in Syria but gave little sense of coordinated strategy at a national level. An earlier report, *Strategic ICT Program for Social and Economic Development* (UNDP 2001), covered similar ground. The only inferences possible were that the use of ICT in education, especially outside universities or private schools, was likely to be patchy, badly supported and not progressive. The ongoing civil and military violence and dislocation mean that even this may not be true.

### 6.4. Palestinian authority of Gaza and the West Bank

The *Palestinian Educational Initiative*,<sup>12</sup> from pre-2005, hoped for *quick wins* in the first 6 months followed by the first phase of mainstream implementation, and talks of

the enhancement of the future of education in the PNA [Palestinian National Authority] through pedagogical techniques empowered by technology that catalyzes socio-economic development.

It hoped this would be accomplished by improving the existing ICT utilisation, encouraging innovation in the education system, building the capacity of the PNA education, ICT and knowledge and enhancing a student-centred learning process that provides skills, knowledge and experiences that would lead to employment and an entrepreneurial mindset. These are very high-level aspirations with a focus on economic transformation (though on one very specific model of economic transformation), based on a participatory approach between relevant stakeholders; a partnership and collaboration approach; opportunities for the private sector to participate, complementing similar regional initiatives; and emphasising a decentralisation policy.

The Ministry however identified challenges in developing knowledge based learning environment.

We see many useful ideas but the focus is on technology in various forms rather than addressing the attitudes, capabilities and competences needed to deliver rather than subvert ‘constructivist approaches to learning’. Much of the detail has still to be developed. An introductory remark does however point out that

One challenge to address is how to build the leadership and management capacity at the Ministry (Education and Telecoms/IT) and district level and provide them with ownership of the initiative at the early stages. Another challenge will be how to change teachers’ and administrators’ attitudes and understanding to enable them to facilitate learning to students beyond the traditional approach of the learning process through the introduction and management of e-learning

The Teacher Education Strategy (TES) in Palestine recommends, ‘Use modern and promising methods in teacher education, including the case-based approach, video recording of different teaching practices, using technology, and e-learning in particular, using interactive cases in teaching, analyzing teaching and learning situations, and conducting research, mainly action research’.

Describing the situation in Gaza is more difficult. Hamas took control of Gaza in June 2007. However, the government education system was not brought under direct Hamas control, unlike internal security. This may mean little or no progress on the development of education policy. A further hindrance is the Israeli blockade and the state of the infrastructure. (UNRWA schools in Gaza do have computer labs and packages for learning Arabic and maths, and haphazard donations of computers.)

In relation to developing teacher capacity, *Improving the Quality of Education Programs for Higher Basic Stage – Social Sciences Major* explored *inter alia* teacher education programmes and focused on the provision, content and delivery within HEIs in order to improve the quality and relevance of teacher education programs provided by HEIs. This was in response to the findings of the TES that stated that pre-service teacher education programmes were

outdated and over-theoretical, with insufficient focus on the practicalities of actual teaching, inadequate teaching practice arrangements, and program delivery methods that help to perpetuate rather than prevent the continuation of traditional, teacher-centered, transmission-oriented, methodologies on the part of student teachers.

The report identified specific issues – including the only mention of digital literacy – that need attention. It recommended that

the concept of digital literacy was introduced and the key descriptors contained in relevant taxonomies (FutureLab 2011; Jenkins 2006; Kay *et al.* 2009) examined in order to establish how digital literacy skills could be incorporated into teacher education courses.

A focus on the use of mobile user owned devices for interaction with web-based technology in the absence of the widespread availability of institutional technology/ teacher/lecturer owned technology was considered.

A warning about the implementation comes from a Qattan Foundation study (Wahbeh 2011) exploring the educational reform in Palestine that began with the publication of a 5-year Ministry of Education and Higher Education (MoEHE) strategic plan (2008–2012). This imposed changed expectations and understanding of roles

amongst teachers, students and principals on one hand and, on the other, the Ministry offices with its supervisory system and operational offices. Findings suggest rather different perceptions:

There seems to be a disconnection between participants' understanding of their roles, constructed through their everyday interactions, and MoEHE expectations, which are driven by the rationalisation procedures stipulated by the so-called 'means-ends' reform model. The processes of professionalisation, standardisation and testing which are the major characteristics of the reform seem to impose a more centralised system which is against the essence of the reform goal outlined in the strategic plan. Furthermore, this approach to reform is disenfranchising teachers from good quality and aesthetic teaching and learning opportunities and reducing the everyday practices of teachers and students to a set of technical and rationalised norms.

In 2016 a set of policy papers were developed by the e-learning project, jointly undertaken by the Palestinian Ministry and Higher Education and the Belgian Development Cooperation. The aim of the project was to introduce the use of ICT in school education in order to enhance student-centred learning and to allow students to acquire twenty-first century skills (21CS) in Palestine. Three of the papers were 'Information and Communication Technology in Education (ICTE)', 'Digital Educational Resources (DER)' and 'mobile Learning (m-L)' and one specifically on 21CS. The first three are necessarily focussed inwards on the school processes; the last one explicitly mentions digital literacy but defines it only by saying 'Digital literacy is *not* just computer operational skills' (MoEHE 2016:6) and saying little else. However, it does say

Technology and education are currently led by the so-called Western world. Although 21CS are ecumenical at a higher abstraction level, their implementations include principles and values which do not always take into account the sensitivities of each particular nation's traditions and values.

Adopting a 21CS framework should not mean blindly copying a foreign educational system, but it should offer a chance to benefit from it. A Palestinian version of 21CS can benefit from the inclusion of Arab and Palestinian traditions and values, whose richness and depth include creativity, collaboration, flexibility and adaptability; they provide models of global citizenship, problem-solving, and decision making. Religion includes personal responsibility. (MoEHE 2016:11)

The status of the papers is unclear – they are certainly not policy – but these paragraphs are significant.

### ***6.5. United Nations Relief and Works Agency for Palestine Refugees in the Near East***

The draft ICT Strategy, in effect its e-learning strategy, does recognise the analysis in this paper and make recommendations accordingly, but it is still a draft awaiting final approval and will in any case be constrained by the acute financial crisis afflicting UNRWA, by the general contextual factors described in this paper and by the requirement to operate its schools within the curriculum framework of the various host countries. (There are also a large number of schools, for example those of NGOs and missionary societies, outside both UNRWA and the respective national systems, adding to the complexity.)

## **6.6. Summary**

It proved possible to access the relevant strategy documents from the host countries. These raised several important questions:

- What is the state of ICT in education strategies in the region? What constitutes such a strategy?
- What if anything is the discrepancy between the strategy and the delivery or implementation?
- What is the place of digital literacy in these policies intended to inform formal learning and ICT?

Taking these in turn, the ICT strategies in host countries were generally not mature or sophisticated, and ICT is often implicit or embedded in national educational policy; the ICT strategies were seldom concrete or specific and were a poor guide for the allocation of resources or priorities. They were not generally the expression of any clear vision or values (though this may be because they blur and disguise differing and divergent visions and values in order to achieve a consensus). There was not a clear mechanism from experimentation via evidence to sustainability and no lead on innovation and strategy. In terms of teaching, the ICT strategies seemed implicitly conservative, seeking to improve existing practices or to transform them only haphazardly, and the place of digital literacy is minimal and marginal.

Secondly, most strategies give some contextual constraints and some historical background, define some broad vision and outline some recommendations. Their failure is often to focus on expenditure and on required infrastructure at the expense of building and retaining the human capacity, the key to any digital literacy curriculum since it is about living in the digital world as it is, not spending towards a different one. Furthermore, there is a failure to recognise the changing nature of the outside world, technologically and economically, and a failure to map aspirations onto the specifics of regional culture, expectations and traditions. The ICT strategies are in many respects a deficit model, addressing perceived shortcomings compared to standards of provision in Europe or America and making few observations about the nature of Arab culture or Palestinian culture, however simplistically, and how it might represent an important ingredient of any analysis. The ecosystem, meaning the people, structures, values, organisations, transactions that encompasses experimentation, evaluation, evidence, policy change, resource allocation and attitudinal shift, are absent even in the most philosophical sense, as are mechanisms for recognising and responding to change. The digital literacy curriculum should be seen in the context of lifelong learning, of continuing to learn after compulsory and formal education and towards individual interests and aspirations, freed from the digital media and systems of compulsory, formal education.

Thirdly, it is difficult to reach a judgement about the likely discrepancy between strategy and delivery. The strategies are difficult to locate, inconsistent in format and rapidly obsolescent in the changing political situation. Accounts of the subsequent delivery are patchy and partial and so it is difficult to learn anything. Strategy and delivery are not discrete or separate issues. These observations reveal the distance between the experiences of learning for many of the Palestinian refugee communities and of any adequate and appropriate digital literacy concepts and curriculum. Caution and scepticism are needed if local initiatives and aspirations are not to be judged by global, European or American standards and achievements, leading to

strategies and policies framed in the context of *catching up*, of addressing perceived inadequacies and deficits. Given the ubiquity of the digital technologies of US corporations, the hegemony of US English in the global knowledge economy and the sophistication and diversity of European work on these topics, this must be a significant concern, but the most recent document (MoEHE 2016) does raise the issue, however briefly.

## **7. Conclusion**

This paper outlines the ambitions and objectives encapsulated in the ideas of digital literacy and critiques any implicit assumptions that the digital environment is global, homogeneous, neutral or benign; it documents the current national digital education policies in the region and exposes their lack of any currently adequate policy, strategy, resources or curriculum to develop or deliver a digital literacy curriculum. The paper attempts to create a bridge between academics and researchers analysing the situation in the region, academics and officials working on educational policy and practice, and researchers and developers involved in educational technology. There is clearly a gap between what is provided (by educational systems and policies) and what is needed (by people and communities) – external models and existing practices give a very general outline of what might fill this gap but the specifics are local and contingent. In order to make this a more realistic possibility there is the need for a research agenda that will comprise

- Fieldwork amongst, and by, Palestinian refugee communities to give greater authenticity, granularity and precision to descriptions of their world and correspondingly a more detailed exploration of the digital opportunities, educational, cultural, political and economic, that they might access.
- The development and deployment of techniques that give an accurate, timely and authentic account of the evolving digital practices of Palestinian people and communities, specifically techniques that are culturally appropriate; however, these adjectives are chosen with care and encapsulate a considerable methodological challenge.
- Systematic reviews of the literature, firstly, of the region and its communities to seeking greater clarity and precision on the digital environment, on the changing impact, opportunities, activities and barriers in the digital world and beyond, and, secondly, of the digital literacy literature, for insights, concepts and methods from outside the Anglophone university sectors.

These are only scoping measures but they might help educators close the gap discussed in this paper. In the longer term, of course, we hope to see a vibrant and active community growing in the region committed to taking these issues forward.

## **Notes**

1. <http://www.unrwa.org/palestine-refugees>
2. ditto
3. UNRWA estimates that, in the last 5 years, 302 (or 44%) of all its schools have been directly impacted by armed conflict and violence, either causing physical damage to the schools or significantly disrupting education services. (UNRWA 2016)

4. For example, <http://www.jisc.ac.uk/whatwedo/projects/elearning/llida.aspx>, <http://jiscdesignstudio.pbworks.com/w/page/46421608/Developing%20digital%20literacies>, <http://www.jisc.ac.uk/whatwedo/programmes/elearning/developingdigitalliteracies/developing-digitalliteraciesprog.aspx>
5. <http://www.wlv.ac.uk/research/institutes-and-centres/cedare---centre-for-developmental-and-applied-research-in-education/funded-research-projects/current-education-research-projects/methods-project/>
6. <http://www.bbc.co.uk/news/magazine-32697424>
7. <http://www.bbc.co.uk/news/magazine-29535343>
8. <http://www.bbc.co.uk/news/magazine-28246732>
9. [www.unrwa.org](http://www.unrwa.org)
10. [http://www.opentech.me/~laes/upload/editor\\_upload/file/Vision%20Document%20%20English.pdf](http://www.opentech.me/~laes/upload/editor_upload/file/Vision%20Document%20%20English.pdf)
11. <http://hamdaneducation.com/arabic/EPeJdocs/4th6.htm>
12. <http://www.pei.gov.ps/english/introduction.html>

## References

- Abdul-Hamid, H., et al., (2015) *Learning in the Face of Adversity: The UNRWA Education Program for Palestine Refugees*, World Bank Publications, Washington, DC.
- Al-Amleh, M. (2014) *Identifying the Palestinian Culture According To Hofstede's Theory*, MA Thesis, Al-Quds University, Jerusalem, Occupied Palestinian Territories.
- Al Husseini, J. & Bocco, R. (2009) 'The status of the Palestinian refugees in the near East: the right of return and UNRWA in perspective', *Refugee Survey Quarterly*, vol. 28, no. 2–3, pp. 260–285.
- Alkailani, M., Azzam, I. A., & Athamneh, A. B. (2012) 'Replicating Hofstede in Jordan: ungeneralized, reevaluating the Jordanian culture', *International Business Research*, vol. 5, no. 4, p. 71.
- Aouragh, M. (2003) 'Cyber Intifada and Palestinian identity', *ISIM Newsletter*, vol. 12, p. 2.
- Aouragh, M. (2008) 'Everyday resistance on the Internet: the Palestinian context', *Journal of Arab & Muslim Media Research*, vol. 1, no. 2, pp. 109–130.
- Aouragh, M. & Alexander, A. (2011) 'The Arab spring – the Egyptian experience: sense and nonsense of the internet revolution', *International Journal of communication*, vol. 5, p. 15.
- Barrie, S. C. (2004). A research-based approach to generic graduate attributes policy. *Higher Education Research & Development*, vol. 23, no. 3, pp. 261–275.
- Beetham, H. (2010) *Review and Scoping Study for a Cross-JISC Learning and Digital Literacies Programme: Sept 2010*, JISC, Bristol, UK.
- Beetham, H. & Sharpe, R. (2009) for example, see 'Becoming Digital: who's e-literate now?' [online] Available at: [www.academy.gcal.ac.uk/llida/ELESIGkeynote.ppt](http://www.academy.gcal.ac.uk/llida/ELESIGkeynote.ppt)
- Belshaw, D. (2011) *What is 'digital literacy'?*, EdD Thesis, University of Durham, Durham, UK [online] Available at: <http://dougbelshaw.com/thesis>
- Bortolazzi, O. (2011) 'Hezbollah: between Islam and political society popular mobilization and social entrepreneurship in Lebanon', *Takaful, the First Annual Conference on Arab Philanthropy and Civil Engagement*, the American University in Cairo, Cairo, Egypt, pp. 26–45, [online] Available at: <http://www.campusincamps.ps/wp-content/uploads/2012/07/TakafulFinal.pdf#page=32>
- Buckner, L. & Kim, P. (2012) 'Mobile innovations, executive functions, and educational developments in conflict zones: a case study from Palestine', *Education Tech Research Development*, vol. 60, pp. 175–192.
- Burns, M. (2012) *Educational Technology in Lebanon, Jordan, the United Kingdom, and the United States*, Education Development Center, Inc., Beirut, Lebanon.
- Dahan, M. (2012) 'The Gaza strip as panopticon and panspectron: the disciplining and punishing of a society', in *Proceedings Cultural Attitudes towards Technology and Communication 2012*, eds M. Strano et al., Murdoch University, Perth, Australia, pp. 25–37.

- Dennis, E. E., et al., (2010) *Information and Communication Technology (ICT) in Education in five Arab States*, UNESCO, Paris, France.
- Fagen, P. W. (2009) *Iraqi Refugees: Seeking stability in Syria and Jordan*, Center for International and Regional Studies Georgetown University School of Foreign Service in Qatar, Washington, DC.
- FutureLab (2011) Digital Literacy across the Curriculum, Bristol: FutureLab.
- Gordon, C. (2011) *From Speech to Screen: The Orthography of Colloquial Arabic in Electronically-Mediated Communication*, PhD Thesis, Bryn Mawr College, Bryn Mawr, PA, [online] Available at: [http://triceratops.brynmawr.edu/dspace/bitstream/handle/10066/10143/gordon\\_thesis\\_2011.pdf?sequence=1](http://triceratops.brynmawr.edu/dspace/bitstream/handle/10066/10143/gordon_thesis_2011.pdf?sequence=1)
- Halstead, M. (2004) 'An Islamic concept of education', *Comparative Education*, vol. 40, no. 4, pp. 517–529.
- Hamdoun Al-Soufi, A. (2005) *Cultural Differences Between Arabs and Danes*, Masters Thesis in EU Business and Law, Aarhus University, Aarhus, Denmark.
- Hijazi-Omari, H. & Ribak, R. (2008) 'Playing with fire: on the domestication of the mobile phone among Palestinian teenage girls in Israel', *Information, Community and Society*, vol. 11, no. 2, pp. 149–166.
- Jenkins, H. (2006). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century. *An Occasional Paper on Digital Media and Learning*. John D. and Catherine T. MacArthur Foundation.
- Junka-Aikio, L. (2010) *Mobile Phones and the Rise of Neo-Liberal Consumer Subjectivity in Palestine*, Robert Schuman Centre for Advanced Studies, European University Institute, Florence, Italy.
- Kay, D., McGonigle, B., Patterson, W., & Tabbiner, B. (2009). Next generation user skills report. Sero Consulting. Retrieved on 6 May 2010 from <http://www.digital2020.org.uk/skills/strands/nextgen>
- Kuntsman, A. & Stein, R. L. (2011) 'Digital suspicion, politics, and the middle east', *Critical Inquiry* (online feature on Arab Spring) available online at [https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/6782/Digital\\_suspicion\\_Kuntsman\\_and\\_Stein.pdf?sequence=1](https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/6782/Digital_suspicion_Kuntsman_and_Stein.pdf?sequence=1), pp. 1–10.
- Lally, V. & Traxler, J. (2016) 'TEL—the crisis and the response: an introduction', *Interactive Learning Environments* vol. 24, no. 5, pp. 935–937.
- Mandaville, P. (1999) 'Digital Islam: changing the boundaries of religious knowledge?', *ISIM Newsletter*, p. 1 & p. 23, [online] Available at: [https://openaccess.leidenuniv.nl/bitstream/handle/1887/17137/ISIM\\_2\\_Digital\\_Islam-Changing\\_the\\_Boundaries\\_of\\_Religious\\_Knowledge.pdf?sequence=1](https://openaccess.leidenuniv.nl/bitstream/handle/1887/17137/ISIM_2_Digital_Islam-Changing_the_Boundaries_of_Religious_Knowledge.pdf?sequence=1)
- Martin, A. (2005) 'DigEuLit – a European framework for digital literacy: a progress report', *Journal of eLiteracy*, vol. 2 pp. 130–136.
- MoEHE. (2016) *MoEHE Policy Papers, Palestinian Ministry of Education and Higher Education*, Ramallah, occupied Palestinian Territories.
- 'Mustafa' (2011) *The Arab World's Hofstede's cultural dimensions*, [online] Available at: <http://mustafa-aroundtheworld.blogspot.co.uk/2011/11/arab-worlds-hofstedes-cultural.html>
- Nansen, B., et al., (2013) "'MYBus": young people's mobile health, wellbeing and digital inclusion', *The Journal of Community Informatics* vol. 9, no. 2, [online] Available at: <http://ci-journal.net/index.php/ciej/article/view/833/1007>
- Newman, D. (1989) 'Civilian and military presence as strategies of territorial control: the Arab-Israel conflict', *Political Geography Quarterly*, vol. 8, no. 3, pp. 215–227.
- Prensky, M. (2001) 'Digital natives, digital immigrants', *On the Horizon*, vol. 9, no. 5, pp. 1–6,
- Rabaya'h, K. S., & Mansour, O. (n.d.) *The Palestinian and Arab-Israeli Conflict in the Cyberspace: Escalation vs. Conciliation*, [online] Available at: [http://www.conflictict.org/wp-content/uploads/2015/09/Rabayah-Mansour\\_ConflictIT.pdf](http://www.conflictict.org/wp-content/uploads/2015/09/Rabayah-Mansour_ConflictIT.pdf)
- Sabbagh, K., et al., (2012) *Understanding the Arab Digital Generation*, Booz & Company, Chicago, IL.

- Salem, P. (2006) 'The future of Lebanon', *Foreign Affairs* vol. 85, no. 6, pp. 13–22, [online] Available at: <http://www.la.utexas.edu/users/chenry/usme/2007/PaulSalemArticle.pdf>
- Shalan, A. & Abdelnour, S. (2014) *Another Casualty of Israel's Wars: Palestinians' Right to Education*, Al-Shabaka: The Palestinian Policy Network, Washington, DC, pp. 1–4.
- Sharp, J. M., et al., (2006) *Lebanon: The Israel-Hamas-Hezbollah Conflict*. Library of Congress, Congressional Research Service, Washington, DC.
- Shiblak, A. (1996) 'Residency status and civil rights of Palestinian refugees in Arab countries', *Journal of Palestine Studies*, vol. 25, no. 3, pp. 36–45.
- Shraim, K. & Crompton, H. (2015) 'Perceptions of using smart mobile devices in higher education teaching: a case study from Palestine', *Contemporary Educational Technology*, vol. 6, no. 4, pp. 301–318.
- Shraim, K. & Khlaif, Z. (2010) 'Students' readiness towards e-learning. A case study of virtual classrooms for secondary education in Palestine', *The 3rd Annual Forum on e-Learning Excellence in the Middle East*, Dubai, United Arab Emirates (UAE), pp. 1–4.
- Stevens, M. R. (2016) 'The collapse of social networks among Syrian refugees in urban Jordan', *Contemporary Levant*, vol. 1, no. 1, pp. 51–63.
- Suleiman, J. (2006) *Marginalised Community: The Case of Palestinian Refugees in Lebanon*, Development Research Centre on Migration, Globalization & Poverty, University of Sussex, Falmer, Sussex, UK.
- Tawil-Souri, H. (2009) 'Towards a Palestinian cultural studies', *Middle East Journal of Culture and Communication*, vol. 2, no. 2, p. 181.
- Tawil-Souri, H. (2012) 'Digital occupation: Gaza's high-tech enclosure', *Journal of Palestine Studies*, vol. 41, no. 2, pp. 27–43.
- Tawil-Souri, H. & Aouragh, M. (2014) 'Intifada 3.0? Cyber colonialism and Palestinian resistance', *Arab Studies Journal*, vol. 22, no. 1, p. 102.
- THE. (2015a) 'Why has scientific progress stalled in many Islamic countries?', *Times Higher Education*, 24 July 2015, [online] Available at: <https://www.timeshighereducation.com/news/why-has-scientific-progress-stalled-many-islamic-countries>
- THE. (2015b) 'From fair Verona to the wall beyond Ramallah', *Times Higher Education*, 2 July 2015, [online] Available at: <https://www.timeshighereducation.co.uk/from-fair-verona-to-the-wall-beyond-ramallah>
- Traxler, J. (2009) 'Mobile subcultures', in *Connected Minds, Emerging Cultures*, ed S. Wheeler, Information Age, Greenwich, CT, pp. 17–28.
- UNDP. (2001) *Strategic ICT Program for Social and Economic Development, SYR/02/001m United Nations Development Programme Project of the Government of Syria, PSD DOCUMENT, Project number: SYR/02/001*. New York, NY: UNDP.
- UNRWA. (2016) *Schools on the Front Line – The Impact of Armed Conflict and Violence on UNRWA Schools and Education Services*, United Nations Relief and Works Agency, Amman, Jordan, Available at: <http://www.unrwa.org/resources/reports/schools-front-line-impact-armed-conflict-and-violence-unrwa-schools-and-education>
- UNESCO UIS. (2013) *A Teacher for Every Child: Projecting Global Teacher Needs from 2015 to 2030, UNESCO Fact Sheet 27*, UNESCO, Paris, France.
- USAID. (2008) *Synthesis Report Overview and Recommendations to the Jordan Education Initiative*, USAID, Washington, DC.
- Urry, J. (2007) *Mobilities, Polity*, Cambridge, UK.
- WSIS. (2011) *Partnership on Measuring ICT for Development, 2011, World Summit on the Information Society (WSIS)*. Geneva, Switzerland: ITU.
- Wagner, B. (2011) 'The Arab spring – "I Have Understood You": the co-evolution of expression and control on the Internet, television and mobile phones during the Jasmine Revolution in Tunisia', *International Journal of Communication*, vol. 5, no. 8, pp. 1295–1302.
- Wahbeh, N. (2011) *Educational Reform and Meaning Making in Palestinian Schools: An Ethnographic Study of Six Public Schools*, A.M. Qattan Foundation, Ramallah, Occupied Palestinian Territories.

- Weishut, D. J. N. (2012) *My Friend is a Palestinian Bedouin: Challenges and Opportunities in Intercultural Friendship*, PhD Thesis, Professional School of Psychology, Sacramento.
- White, D. S. & Le Cornu, A. (2011) 'Visitors and residents: a new typology for online engagement', *First Monday*, vol. 16, no. 9, [online] Available at: <http://firstmonday.org/ojs/index.php/fm/article/view/3171/3049>
- Wheeler, D. (2002) 'Islam, community, and the Internet: new possibilities in the digital age', *Interface: The Journal of Education, Community and Values*, vol. 2, no. 2, [online] Available at: <http://bcis.pacificu.edu/journal/2002/02/islam.php>
- Wright, M. (2008) 'Technology and terrorism: how the Internet facilitates radicalization', *The Forensic Examiner*, vol. 17, no. 4, pp. 14–20. Available at: <http://www.biomedsearch.com/article/Technology-terrorism-how-Internet-facilitates/189957231.html>
- Yerousis, G., et al., (2015) 'Computer-enabled project spaces: connecting with Palestinian refugees across camp boundaries', *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, ACM, New York, NY: ACM, pp. 3749–3758.
- Yiftachel, O. (2005) 'Neither two states nor one: the disengagement and "creeping apartheid" in Israel/Palestine', *The Arab World Geographer/Le Géographe du monde arabe*, vol. 8, no. 3, pp. 125–129.
- Zeid, A. & Al-Khalaf, F. (2012) 'The role of social media in the Egyptian revolution: the initiation phase (2010–2011)', *American Academic & Scholarly Research Journal*, vol. 4, no. 5, p. 1.