



Sumud as Connected Learning: Towards a Collective Digital Commons in Palestine

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ABSTRACT

This paper postulates how connected learning in Palestine is characterised by the metaphor of *Sumud* as a steadfast resistance to disruption. We propose that the metaphor of *Sumud* symbolises connectedness for displaced people, whose need for connected learning encompasses a cultural and critical pedagogy, heritage, and self-determination. Palestinians exist in paradoxes we explore, particularly in those who seek to remain in their homeland but also as free to travel, study and work abroad, none of which are simple. For those who stay, education equates to an attempted continuity of normal life, which is explored through discussions with higher education teachers as part of this paper's research design. We use *Sumud* to symbolize connected learning grounded in a sovereign culture that displaced communities may otherwise lose. Drawing from data resulting from an Erasmus+-funded project between the UK and Palestine, we underpin a proposal for a *digital commons*. The digital commons is presented as a potential toolkit of decentralised online spaces for shared learning opportunities, encapsulating *Sumud* for connected learning among displaced people. We propose that a theoretical framework for *Sumud* as a metaphor for critical pedagogy must reconcile the separate constituents of safe online spaces, social aspiration, cultural sovereignty, and political displacement and that this is manifest in the toolkit.

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Central to this paper is the concept of *Sumud* (in Arabic) as used in Palestine to signify a steadfast perseverance and resistance to disruption. Equally central to the paper is the notion of connected learning. In this paper, we draw on examples of innovative learning using digital technologies that arose from an Erasmus+ funded project to conceptualise both *Sumud* and the connectedness of connected learning. We use connectivity beyond learning in threefold ways: firstly, connectedness relates to an occupied land where disconnection occurs through forcible physical removal; secondly, connectedness to the heritage of culture and the outside world; and thirdly, as connectedness to infrastructure, particularly digital technology, to enable connectivity to community networks.

While we assert that this paper contributes to wider discussions about the latter, it is necessary to start with a clear definition of what *Sumud* means, before we apply its definition to an understanding of connected learning and open this to the meaning of what we propose as the digital commons in the final sections.

SUMUD AS METAPHOR FOR CONNECTEDNESS

Sumud is originally an Arabic concept meaning to be steadfast, depicted often as a tree whose roots signify a grounding to the earth and whose branches symbolize freedom. It has strong bearings to Palestine, evident in the Palestinian sense of rootedness in the land and a resistance to dispersal. *Sumud* is attributed with multiple meanings, including self-sufficiency (Rijke and van Teeffelen 2014), resilience and solidarity against injustices. *Sumud* as a way of resistance and collective struggle has apparent overlaps with education, with collective Palestinian identity forged into a curriculum, or with the value of resistance as self-determination being seen as part of wider learning objectives. Such links to education are yet relatively unexplored and are explored in this paper.

CONNECTED LEARNING AS BEYOND TECHNOLOGY

In this paper, we discuss connected learning, which has previously been characterized as advocating for personal interests and that are socially embedded, such as civic engagement and overcoming adversity (Ito et al. 2013). In its original conception (Ito et al. 2013), it was intrinsically linked by those authors to digital media, but connectivity, in the context of Palestine, means more than just technology. Connectivity can relate to the cohesion of Palestinian people and communities; the ties that bring them together, whether social, cultural, geographical or infrastructural; or the overt sense of identity and purpose (which may be labelled sovereignty).

To speak about connectivity in the context of Palestine, it may be more appropriate to first conceive of the disconnections inherent to Palestinian life. The shrinking map of its territory shows an archipelago of disconnected communities, separated by roadblocks and checkpoints (see Figure 1), settlement walls and illegal settlements that force Palestinians to become dislocated from one another (Ramahi 2015). Gaza, famously described as an open-air prison (Chomsky and Pappé 2015), is at the time of writing this paper under invasion by the Israeli Defence Forces in actions described as exceeding international law and “mass ethnic cleansing” by UN human rights expert Francesca Albanese (United Nations 2023). This crisis will undoubtedly contribute to exceeding one hundred million forcibly displaced people, as recorded at the end of 2022 (Drolia et al. 2022). Throughout the West Bank, disconnection is a norm, whether physically through severely affected transport infrastructure or where the Israel Defense Forces (IDF) disconnects power supplies to prevent homes from being heated during cold winters or water being supplied during fierce summers (Fraiberg 2021). Communication networks are rarely disrupted purely by acts of nature. In their article, Tawil-Souri and Aouragh (2014) give examples of the single landline connecting north and south Gaza in 2012 being deliberately severed or transmission towers and fibre-optic cables being vandalized in the West Bank.

In the context of Palestine, connectivity, then, can never be taken for granted. Connected learning, which is often framed as online access, knowledge exchanges and cultural interactions (Ito et al. 2013), must be extended to account for this social and environmental backdrop where connectivity is unstable. This comprises a range of paradoxes which will be illustrated in a later section. These relate to how *Sumud* may be developed as metaphor for the context of Palestinian

connected learning. However, there are numerous paradoxes towards the connectedness of Palestine some of which, that are pertinent to what follows, are outlined in the next section.

PARADOXES OF CONNECTIVITY

Following the circumstances of October 2023, with Gaza presently under attack, the West Bank is even more prone to tension than usual. There are curfews in many towns, resulting in lecturers and students feeling despondent about their situation. In such crises, education is a little diversion from reality. The desire for learning in Palestine has been called a weapon (Smith & Scott 2023) and a means to access a wider world, but education may become largely irrelevant in the turmoil of war in the minds of young people. This is one among the many paradoxes that Palestinians live through regarding their education: the importance of education alongside the sense of being unable to connect with opportunities in their own or the wider world because of the occupation.

At the core of all paradoxes outlined about Palestine is a significant one: the need to stay in their land amid the eradication of statehood and the desire to leave for safety. The situation of displacement within Palestine is shown by Loewenstein (2006), who labels the occupation as ‘engendered statelessness’ and explains:

“Because [Palestinians] would not be allowed to return to their homes if they left, those without IDs are effectively held prisoner by the Israeli state through a permit system that restricts even the most legitimate residents of these areas from crossing into another zone. ‘Dispossession’ has taken on a new significance as millions have lost not only their land but also any internationally-recognized validation of their identities.” (2006: 25).

This enforced restriction of freedom of movement reflects the conditions of *Sumud* as another paradox, with Palestinians in a static state: steadfast but vulnerable (to settlers, the Israeli military, etc.) and stuck in an in-between state of liminal transition (Gallagher, Najjuma & Nambi 2023), where steadfastness becomes entwined with sovereign self-determination, despite the eradication of territory. *Sumud* can be seen as something resilient and rooted that can facilitate a continuity in learning, but which is reliant on digital sources to sustain it.

Another paradox inherent to Palestine is for the populace to become displaced and exiled as refugees within their own country. This is on top of the refugees who have long been removed from their land by force and who may be unable to connect with their families or homes due to the segregation wall, roadblocks, or settlements. Technologies in the Israeli-Palestinian conflict context have held promise since the early 1990s when

“the internet hype came under the guise of connecting Palestinians, regardless of geographic location (in Israel, in the occupied territories, in refugee camps in Lebanon, and farther away in the diaspora, to each other and the world)” (Tawil-Souri & Aouragh 2014: 103).

That said, this power of reach and connectivity could never be easily facilitated. This is due to the internet traffic being contingent on Israeli networks (e.g. Hadara), providing Palestinians with slower service sold at inflated costs and unstable coverage (Tawil-Souri 2022).

Muhtaseb, Traxler and Scott (2023) point to social media as promoting convergence among communities in the West Bank. Interaction through social media is invaluable for the people of Palestine, who have become cut adrift in representation, as shown by Loewenstein (2023), who describes how some of the giant technology companies ‘shadowban’ content that references Palestine. This has apparently happened inadvertently in some cases: Palestinians describe those killed by occupiers as ‘martyrs’. Content moderators for Instagram or Facebook mistakenly infer the cultural reference of ‘martyr’ to be linked with terrorism, so they hide otherwise benign content, such as tributes to the dead. In other cases, social media content appears to be wilfully suppressed by those companies, indicating their affiliation with one side over another. This essentially makes subjects of social media ‘invisible’ by hiding their posts in a digital form of suppression; worse yet are arrests that happen because of critical posts made to social media (Nazzal 2021; Loewenstein 2023).

Herein another paradox: the supposedly emancipatory (Monshipouri & Prompichai 2018) or democratizing (Akinlar et al. 2023) potential of social media networks, which also act as surveillance tools (Loewenstein 2023). It is this paper's purpose to propose a digital commons that prioritises anonymity, safety and privacy in its operation. It is obvious to emphasise using devices and interfaces that prohibit location services, for instance, when refugees are escaping wars, but communication platforms for the displaced should also be encrypted and private. This can seem in contradiction to the nature of corporate social media, which often take openness as their default setting.

The paper continues with illustrative examples of how digital technologies are used by the population to create a semblance of continuity to normal life. This is used to show how civilians, as well as educators, develop resilience and self-determination through the unique functions of these tools that will underpin what we propose for a digital commons infrastructure to support connected learning. This begins with examples of everyday disruption below, before examples demonstrating innovation help to frame our proposition in this paper of *Sumud* as a meta concept for connectivity. The paper's key argument is related to a digital commons infrastructure that is proposed later as a suite of digital tools which can mitigate adversarial actions against vulnerable and displaced people.

DISRUPTIONS TO CONNECTIVITY

Raids by Israeli forces on Palestinian towns, campuses and refugee camps in the West Bank are usually accompanied by the closure of checkpoints between cities where most of the Palestinian universities exist. Because students and staff cannot travel to besieged cities, universities find themselves obliged to go back to remote learning to ensure that learning can continue.

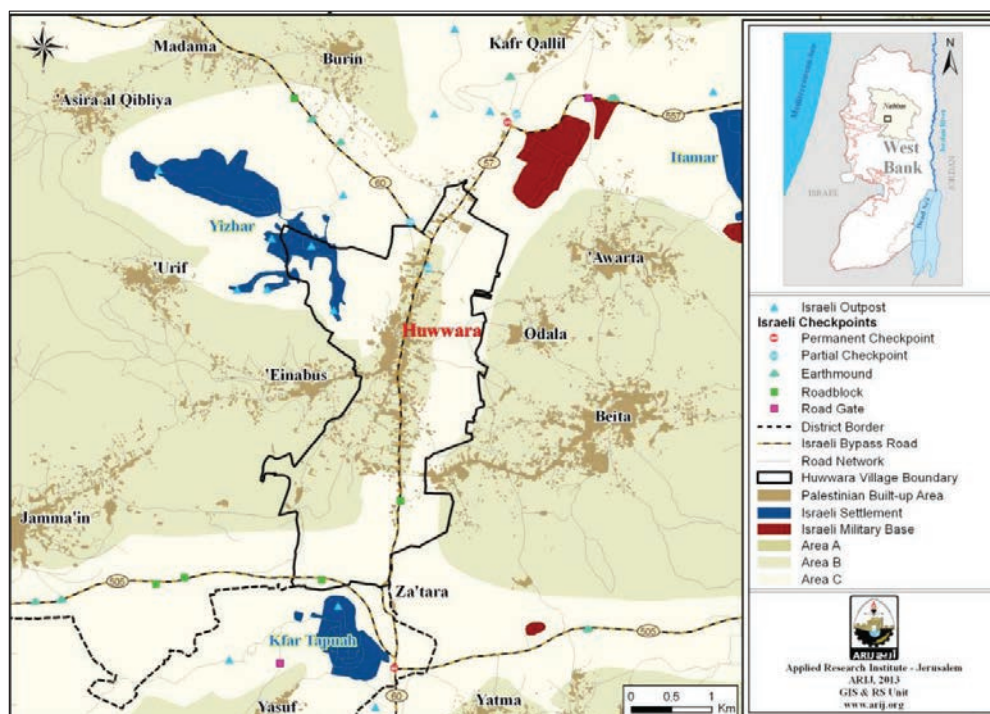


Figure 1 Huwwara location and borders (Applied Research Institute – Jerusalem, ARIJ-GIS, 2014).

A routine aspect of Israeli disruption is the frequency of blockades, limiting access and mobility. Inner roads are often closed for settlers' convenience, causing chaos for residents who must seek alternative routes for work and university. Huwwara, a town that has been the scene of much aggression by settlers over many years (Ujvari 2022), serves here as an illustrative example of daily Palestinian existence where violations from adversaries were common long before the incidents surrounding October 2023. The town is positioned along a crucial highway linking the northern and southern regions of the West Bank. Situated predominantly in Area C (see Figure 1), its security is overseen by the Israeli government and is characterized by rigorous military checkpoints and ubiquitous road closures that prevent communities from connecting. Blockades make travel dangerous for everyone; staff and students cannot access the physical spaces of their institutions or offer/attend in-person educational provision, necessitating

precariously unstable online connectivity and coordination between teachers and students. Absent students' need to provide alibis, and citing roadblocks has become common, leading to doubts over the veracity of their claims (Svirsky 2022). This disruption not only impacts the educational process and provision but distorts subjective reality, leading the oppressed to blame themselves for the occupiers' aggressions. We include this example to show how communities in the West Bank routinely experience disconnection at a physical level but also how they counter this with technology.

EXAMPLES FROM A DIGITAL COMMONS

To cope with such daily challenges as road closures, Palestinians have created an instant messaging Telegram channel with around 160,000 subscribers, providing live updates on West Bank road situations, particularly in Area C (Figure 2). This communication channel is, however, dependent on service provision from the occupying state (Tawil-Souri 2022), which is expensive, unstable and frequently used for surveillance (Loewenstein 2023). Connectivity at either community (i.e. education), infrastructural (i.e. transport) or digital level is contingent on what is allowed by the occupier. For example, since October 2023, Palestinians crossing Israeli checkpoints risk arrest if their phones contain content or Telegram news channels reporting on the genocide occurring in Gaza. The Israeli authorities' practice of randomly stopping individuals and searching their phones for Palestinian content has led to a situation where Palestinians feel compelled to frequently delete apps and images before crossing checkpoints to avoid arrest or physical harassment (Goodfriend 2023; AbdulKarim 2024). Israel makes it increasingly perilous for Palestinians to engage in digital communication and share information. Consequently, the connectivity of Palestinians is severely compromised as they navigate these oppressive measures. The result is a fragmented and cautious digital presence, where the threat of surveillance and punishment dictates the extent of their connectivity.



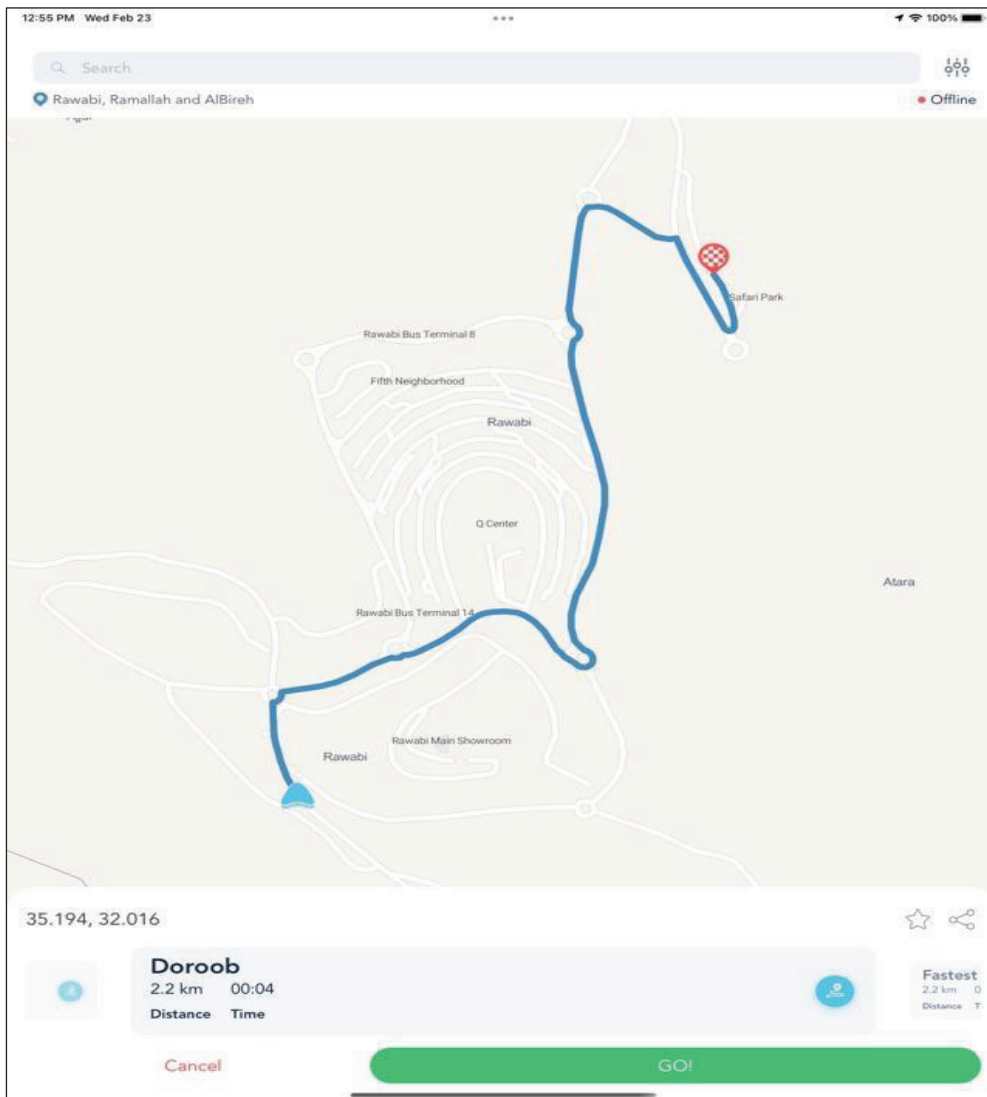
Figure 2 A screenshot of a conversation in a Telegram channel on the status of checkpoints.

While 160,000 Telegram members appear to show proficient mobile connectivity in the West Bank, it equally reflects the extent to which disruption affects widespread numbers of the population. This example is provided to show how educators and students navigate the roadblocks in real time to continue daily life as best they can. This is not straightforward given the control Israel exerts over mobile access and distribution, detailed by Tawil-Souri: “consumers subscribe to Palestinian local providers, but every local provider must purchase access from commercial Israeli middlemen who purchase connection from larger backbone providers connected to landing points along Israel’s coastline” (2022: 1070). Nevertheless, the use of Telegram reflects in part the resistance to the disruption that *Sumud* represents in this paper, with communities finding a means to continuity.

Further to this first example looking at Telegram, we also wish to illustrate local innovation to circumvent unpredictability. Developers in the West Bank city of Ramallah through

crowdsourcing, have designed a Geographic Information System, Doroob Navigator, with routes updated according to checkpoints, settlements and road closures (Fraiberg 2021) (Figure 3). Palestinian collective resilience is imbued through the app's development as a symbol of self-determination and reclaiming of territory, with Fraiberg (2021) using Doroob as an example of Palestinians problem-solving.

Figure 3 Screenshot of Doroob Navigator.



Doroob Navigator is a Geographic Information System that provides updated knowledge on road closures and roadblocks via maps, as shown above. According to Loewenstein (2023), tools such as Doroob represent alternative choices to those which censor, survey or profile users. This is directly linked to the argument we are making in this paper. The purpose of including this example is to underpin the argument emerging: that Palestinian innovation can potentially circumvent adversarial disruption through the development of tools that constitute a digital commons. This innovation is part of the self-determination that *Sumud* represents amid a resilience to persevere. The next section is included to show how local technological solutions must be developed, rather than adapting a reliance on potentially adversarial tools which work against the population.

RATIONALE FOR THE DIGITAL COMMONS

Social media can be convergent spaces for displaced communities who may use them for connected learning in emergency scenarios (Traxler et al. 2020). We may also see how 'Open' educators argue a similar case, as open online spaces seek to eradicate barriers to learning, promote culturally situated materials that are made (Alain et al. 2018) and used by their own communities (Lambert 2019; Traxler et al. 2020). Online spaces extend beyond resources for learning as displaced communities need networks and platforms that are safe and secure. This

must take into account the surveillance that is inherent to corporations who trade on the data of users, a call echoed by the International Commission on the Futures of Education for UNESCO (UNESCO 2020): “We must ensure that digitalization does not undermine privacy, free expression, informational self-determination or lead to abusive surveillance. Open educational resources must be prioritized; public education cannot be dependent on digital platforms provided by private companies.” The concern in this paper is the reliance by vulnerable groups resorting to social media, including Telegram, WhatsApp and Meta/Facebook, for communications and learning, rather than designing online network spaces, with the principles of the Open movement (i.e. participation, access and sharing), while prioritising privacy and anonymity.

Demonstrative of what was earlier referred to as ‘adversarial technology’ (i.e. that which is harnessed and used against target groups by adversaries), Loewenstein (2023) explains how companies such as Meta are not neutral operators providing convivial tools for civic participation, let alone any digital resistance to oppression. For instance, voices of dissent, such as through the hashtag #SaveSheikhJarrah, are simply suppressed through removal or warning labels of graphic content that make streams or evidence of abuse inaccessible. Few explanations are ever offered, but for whistleblowers like TikTok moderator Gadear Ayden, who claims to have been part of an Israeli team designed to escalate the cause on one side while restricting documentation on the other. Millions of cases of violent Hebrew speech against Palestinians on social media have been documented by “7amleh” – the Arab Centre for the Advancement of Social Media.¹ Elsewhere, the profiling of Palestinian civilians through facial recognition software and the use of databases is shown in a 2023 Amnesty International report, ‘Automated Apartheid’, which highlights how surveillance systems such as Red Wolf are used to record biometric data of civilians without consent. This is to show that personal trust in digital tools that connect displaced people should not be implicit and that alternatives to hegemonic platforms are needed.

The degree to which human rights violations are experienced in Palestine cannot be compared to countries where more open use of social technologies is prevalent, yet Palestinians depend on these tools for multiple purposes besides education, for example civic participation or activism (Taha 2020). This points to the need for a decolonial approach to the use of digital technologies where oppressed and vulnerable people can be exposed to the openness of being online. This is observed by Dette (2018), who notes the risks to personal safety that can accompany digital technologies. ‘Decolonizing’ is loaded with connotations, from its academic sense to complex geopolitical meaning. In this paper, we note the point from Tawil-Souri and Aouragh (2014) that Palestine is not typically colonized but settled through subjugation that seeks to rid the land of its people. Decolonial here, then, may mean seeking to become untangled from the control of digital hegemonic (dominant) tools (Verdegem 2024; Gonye & Moyo 2023): interfaces, platforms and systems that contribute to control and subjugation, shown by Mohamed, Png and Isaac (2020) as digital sites of coloniality. This has been called ‘digital redlining’ (Besette 2023), where the application of ed tech tools “further reinforces this mass surveillance culture in the name of accountability, disparately affecting marginalized and vulnerable populations by subjecting them to scrutiny and ingesting them into systems that lack transparency about what is done with their personal information” (Besette 2023: 166). Elsewhere it’s argued that “digital hegemony means that the recipients and users of digital technologies and platforms such as WhatsApp, Twitter, and Facebook blithely accept that this is the new, universally efficient way of social communication and learning” (Gonye & Moyo 2023: 139). This is evident in the examples used before: Telegram is presented as a potential alternative to WhatsApp, which has had issues with trusted encryption, but Telegram, while having channel options, keeps encryption of communication optional, rather than by default (Bogos, Mocanu & Simion 2023). This is why Doroob is more innovative, since it is locally developed, and responsive to local need and knowledge, rather than based on imported solutions. Here, the digital commons is proposed as a suite of alternative platforms and hardware that present users with options, develop literacies about vigilance and create backchannels for systems, access, ways of doing, communicating and connecting.

In the next section, we outline how teacher workshops with Palestinians facilitated discussions about innovative pedagogical practices. These lead us to consider *Sumud* as a metaphor for connected learning practices that are culturally situated and underpinned by a ‘digital commons’ toolkit.

1 <https://7amleh.org>.

As mentioned prior, much of the discussion in this paper emerged from a project on innovative pedagogies with technology. The paper now introduces some examples of innovative learning using digital technologies that arose from the authors working together on this Erasmus+ funded project, named TEFL-ePal.² It sought to bridge social and political divides and introduce digital technologies into Teaching English as a Foreign Language (TEFL) courses in Palestinian Higher Education in the West Bank between 2019 and 2022.

During the project, the authors exchanged visits between the participating countries (Palestine, England, Spain, Germany and Turkey) for workshops about innovative pedagogies and technical workshops while creating a suite of open educational resources and modernizing course textbooks. Table 1 shows the timeline of meetings and workshops through the TEFL-ePal project.

DATE & LOCATION	EVENT DESCRIPTION	PARTICIPANTS
January, 2019/ Anadolu University, Turkey	Kick-off project; partner Institutions coming together; knowledge exchange and Identification of limitations, barriers and underpinning project methods, while addressing the objects and delegating responsibilities to different partners.	Hosts from IT and computer sciences in Turkey; 4 UK teacher educators and researchers; 2 German linguistic teachers and researchers; various Palestinian classroom teachers, project leads, researchers and linguists
April, 2019/ Wolverhampton University, UK	Observations Of language teaching In UK post-16 colleges; University of Wolverhampton-led workshops showcasing good practice on pedagogical practice and embedding of digital technologies used in and out of classrooms for learning and assessment.	15 Palestinian teachers and department or faculty leads and UK teacher educators
July, 2019/Various Palestinian HEIs	Palestinian meetings and field visits to sites, exploring current resources; exploring a needs analysis report; establishing pedagogical values for transformative teaching and learning practice.	All visiting partners from Turkey, Germany and UK.
October, 2019/ Wolverhampton University, UK	Visit with tours showcasing problem, project- and inquiry-based learning in different disciplines; technology for differentiation; assessment for learning.	Approximately 15 Palestinian teachers and department or faculty leads visiting the UK, (including new visiting staff who didn't attend the first trip).
March, 2022/Various Palestine HEIs	Final data collection and field visits for evaluation of language laboratories, meeting students and teachers to see resources in situ and gauge impact of project	2 German linguistics teacher/ researcher and 2 UK teacher educators and research staff.
May, 2022/Anadolu University, Turkey	Conclude the project; focus on achievements and future collaborations and continued research	All partners from UK, Germany, Palestine and Turkey.

Table 1 Overview of TEFL-ePal project meetings.

The workshops and meetings were attended by teacher educators, university leadership, classroom teachers, software developers and curriculum leaders from the various countries involved in TEFL-ePal and were situated across multiple sites in each host country at points during the project lifetime (see Table 1).

The project workshops were exploratory, speculative, sometimes ludic, practical and designed to explore examples of innovative practice with technologies and implementing different pedagogical approaches. They comprised planning discussions, knowledge exchange and problem-solving.

The resulting communications, recorded as fieldnotes, observation notes, questionnaires, memos, flip chart responses, audio interviews, and (during Covid-19) conference call transcripts and online forums result in a mass of data for varying purposes. This kind of rich textual data is emblematic of the type of data that arises from interactions which correspond to social

² <https://tefl-epal.ps/>.

constructivism as our epistemological framing for this paper (Adams 2006). Rich textual data can be interpreted for meaning from participants about their perceptions and experiences. Here, we acknowledge that the use of this data arose from across the lifespan of the project for multiple purposes, rather than solely being gathered for the intent of this current paper. Where possible, we have identified which quote comes from which format, whether knowledge exchange workshop, video call or online forum.

At each opportunity in our meetings, workshops and other interactions, we took the chance to record existing examples of practice and emergent examples of innovation based on mobile learning and anything that supported Palestinian educators' modes of connection with their students during periods of disruption. We also variously investigated the challenges educators faced, the responses of students and the type of educational system the participants idealized.

In 2022, we also held two video interviews by mobile with an HE TEFL teacher ('Rushdi') in order to understand their experiences of education and language teaching in Gaza. The educator, though not part of the TEFL-ePal project, joined the call via mobile phone to contribute insights about their links to the wider world. Calls were conducted in English as far as possible, though Palestinian colleagues were able to clarify with questions and answers and the calls were recorded and transcribed for accuracy. For the purposes of this paper, we draw on these calls in the section that follows to illustrate elements of *Sumud* as a metaphor for critical pedagogy. The questions during these calls were wide-ranging, exploring attitudes to what makes a good teacher, what their students' expectations and experiences are, what their goals are in their teaching and how technology might facilitate education in Gaza. Samples from these textual sources are drawn out from across these phased communications to complement discussions which address the research questions.

RESEARCH QUESTIONS

1. How does *Sumud* contribute to an understanding of 'connected learning' as it is in the Palestinian context?
2. What characterizes a 'digital commons' that can underpin connected learning as a toolkit for displaced people?
3. What associations are drawn between the digital commons and *Sumud* as a framework for connected learning?

RQ1. How does *Sumud* contribute to an understanding of 'connected learning' as it is in the Palestinian context?

As stated earlier, disruption and displacement stimulate radically necessary innovative responses from educators to create continuity in teaching and learning. Practitioners working in Gaza have limited chances to leave their territory and even face limits on engaging with what is forced to become 'the outside world' from their perspective. Connecting to the outside world can be made possible through virtual reality and a 'metaverse' as imagined by Rushdi, who envisages how he was

"looking forward to the more advanced, new ways of teaching that the metaverse would help us in teaching English. The new ways have even new methods. There will be some kind of new meta universities, new meta classrooms, where we can interact with students, interact with speakers and take our students to a major city, university or, let's say, a club in London to talk with others."

The quote shows how, in his view, technology enables connections and interaction beyond geographies, which are not only the basis of social learning opportunities but prerequisites for education to prevail. It is impressively pronounced since, within displacement, the paradox between those forced to leave and those wishing to stay becomes clear. In Gaza, the Palestinian community is forced to stay, separated from its nation, continually subject to subjugation from occupiers, unable to leave, but resistant to departing, as with *Sumud* it is grounded in its environment. Remaining steadfast in place, even one so dangerous and disconnected, is an act of resilience for people in colonized localities. A local educator in our online forum exploring the importance of education shared this insight of West Bank educators:

“I can say that the whole situation in Palestine controls our dreams and objectives to be creative. We tend to think not more than our daily life and how to feed our families under the current pandemic with the severe conditions caused by the Israeli occupation.”

The severe conditions referred to again are the reality of all Palestinians. In *Sumud*, we acknowledge roots which bond the tree to its territory, invulnerable and self-determined.

In other examples, we have seen how Palestinian TEFL educators use the terrain of their home city as an educational opportunity. In a knowledge exchange training workshop, a TEFL teacher in Bethlehem shared how she urged students to interview tourists about their impressions of the city and its people. The resulting videos were then uploaded to the social network for learning ‘Edmodo’, where student peers reviewed and commented on the interactions. This form of mobile learning is reflective of the interactions at the heart of the Palestinian nation. There is an evident focus on connection with the outside world (tourists), interaction with their own peers and a connection made between their home life, the social culture and the wider world of language and learning experiences. It is vital for ordinary Palestinians in the West Bank to connect with the world: to share who they are and nurture solidarity. We note in this example from Bethlehem that mobile learning affords students the opportunity to connect with the outside world through video interviews, which give them English practice with tourists. This emphasizes the bond Palestinians have with the wider world and local community. The same is an aspiration for Rushdi in Gaza: *“They need to interact personally with the other culture, with the language, with the people. I find it very disturbing to find the students only connected with two to three or four teachers. We need more; we need them to interact.”*

This need for interaction also resonates with the symbolic tree, as *Sumud*. Trees communicate through hidden underground networks to share information for nurturing and survival. The importance of valuing and communicating cultural heritage was seen from other TEFL educators who shared examples in our knowledge exchange workshops of how they connected with students, both local and international. TEFL educators in West Bank institutions used the online ‘Flipsnack’ journal to practise English writing, with descriptive aspects of their local communities and their future dreams for the future in multimodal accounts comprising photos, audio clips and writing. This echoes statements that connected learning is “meaningful when it is part of valued relationships, shared practice, culture and identity” (Ito et al. 2013: 46). The notion of connected learning as being both inward-looking, local and cultural, and outwardly reaching other communities is evident in these Flipsnack examples. Examples from the workshops offered descriptions of field trips to Jericho and the Dead Sea, while others described harvesting olive trees, the design of local dress or cooking recipes. *Sumud* can be seen here through the role model of the educators, persevering with ensuring a quality of education that connects to the culture and seeks to nurture through resilience and immovability, as the Palestinian poet Mahmoud Darwish says: *“على هذه الأرض ما يستحق الحياة”* (‘We have on this earth what makes life worth living’). Teachers foster *Sumud* by inspiring students about the power of critical pedagogy. As personally and socially transformative, it can ‘make life worthwhile’ by fostering resilience and connectivity through the collective and reinforcing social justice (Akinlar et al. 2023).

The connection between pedagogy and community is a key one in Palestine. Sovereignty is critical under occupation, and pedagogy can celebrate and promote customs such as local dress, cultural habits and practises specific to Palestine (Scott & Jarrad 2023). Through these ways, we assert how cultural sovereignty constitutes vital elements of *Sumud* as a pedagogical reference, with educators connecting their students to their nation, while preserving its identity through means such as storytelling and interactions with the world.

RQ2. What characterizes a ‘digital commons’ that can underpin connected learning as a toolkit for displaced people?

Rushdi talked of the fragile connectivity that keeps their communications alive:

“We need more powerful internet connections. We are lucky today that our connection is stable, otherwise, we’d have to make two to three times this video call. Also, I wish that we had the ability to take our students outside.”

While the West Bank has marginally more stable connections, it may leave HE institutes reliant on hegemonic technological solutions. This is evident when we asked TEFL educators in the online forum what kinds of technologies they use, which were exclusively centralized platforms:

“WhatsApp; Edmodo; Facebook messenger; Zoom; Kahoot; Moodle; Google apps...” This rather narrow range of tools is reflective of the dominant products which Birkinbine (2018) argues can work against users as they form a market monopoly. This is problematic not only in that it can make users (and organisations) reliant on the systems, but it can also eliminate peer production (e.g. the creation of open source alternatives), which would lead to the development of digital skills and a degree of digital autonomy.

We have already shown in a previous section the extent to which the corporations not only act as service providers but work essentially as political agents acting with bad faith against users (Besette 2023). It seems imperative that in any environment where hegemonic tools, such as those listed, work against the interests of vulnerable people and communities, then alternatives need to be sought. As stated earlier, this may better ensure privacy and anonymity to protect vulnerable groups being targeted, whether refugees or activists.

In the previous section, we mentioned the hidden networks where trees share information and this frames the basis of what we call *Sumud*’s digital commons: a potential toolkit for educators of displaced and vulnerable people. This, again, is based on necessity. Where it is not uncommon for Palestinians to be arrested for simply making posts on Facebook (Loewenstein 2023), a digital commons comprises alternative networks: a suite of options of decentralized apps, platforms, hardware are shown in Table 2 below. This may be considered problematic: why should Palestinians be moved off popular sites like Facebook just as they are removed from their own homeland? The digital commons is not about being clandestine but about creating and locating alternative territories (Fraiberg 2021). It is reflective of *Sumud* in creating connections to a collective and being steadfast, with the values of the technology used collectively shared. This has been called ‘boundary commoning’ (De Angelis 2017): connected subjectivities between different, sometimes fragmented, movements into a collective. Birkinbine extends this to a proposal of the ‘digital commons’ to argue that decentralized technologies “preserve the highest degree of autonomy for the community” (2018: 300). Beyond this, if adversaries shut down internet connectivity, a digital commons toolkit may provide solutions, such as *Tails* (tails.net), a portable and secure operating system that runs on the TOR network from USB devices.

We may note here that some work needs to be done to increase awareness of the alternative options available to people, and not just educators, but educators and their institutes can take the lead on this by starting to use decentralized technologies rather than hegemonic tools.

Before drawing in a pedagogical proposal that speculates on connected learning for Palestine, we conclude this section with the table below of recommended technologies that place more emphasis on local culture, adaptability, and the privacy and security of users. This is not exhaustive, and these services may well be prone to issues themselves, but it may make for a better suite of resources for displaced and vulnerable people than centralized hegemonic systems and interfaces. This knowledge fosters anti-fragility and resilience to severe situations, demonstrated by a TEFL educator in the forum:

“[Covid] inhibited innovation in my case as I was very much focused on delivering classes and theories, but it has given me a chance to explore with tools like forum discussions, interactive vocabulary activities.”

The digital commons toolkit, below, may support those in vulnerable situations where security, privacy and anonymity are explicit prerequisites. This is compiled as recommendations by the authors knowledge of network practices that place esteem on features that protect users.

FUNCTIONS, FEATURES AND APPLICABILITY	FACILITATION OF CONNECTED LEARNING	NAME OF PLATFORM, APP OR TOOL
Channels for disseminating information that are less prone to surveillance and censorship than the likes of commercially used centralised spaces, Facebook and Twitter.	Social networks facilitate connections with the wider world and the sharing of information, not just about military attacks but about sovereignty in order to preserve cultural heritage.	Decentralised social networks, such as Bluesky; Mastodon; NOSTR; Edmodo; Discord.

Table 2 A suite of ‘digital commons’ resources to support connected learning.

(Contd.)

FUNCTIONS, FEATURES AND APPLICABILITY	FACILITATION OF CONNECTED LEARNING	NAME OF PLATFORM, APP OR TOOL
Enable private browsing and mask IP addresses, disguise the location of users and enable private browsing.	These can be used to improve anonymity, to visit blocked websites, to ensure the right to access information and to avoid censorship of shared content.	Virtual Private Networks: e.g. NordVPN; Mullvad.
Non-tracking browsing: enables private searching and hides search history.	Using alternative, non-commercial operating systems, browsers and search engines can promote digital literacy among the displaced giving them more freedom and security online.	Duckduckgo; Brave; startpage.com .
Encrypted messaging apps that provide better security and anonymity.	Users can communicate in real-time but largely without concerns about what they are sharing being accessed by third parties.	Signal; Telegram; threema; Matrix; Protonmail (encrypted email service).
Alternative Operating Systems.	Where access to main systems is either unpractical or unwanted, these facilitate ways to run hardware not reliant on commercial systems. Develop digital literacy capabilities.	TOR; TailsOS; Qubes; GrapheneOS; i2p; Start9.
Digital money exchange platforms.	Cryptocurrencies used for discrete transactions to enable purchases to promote access to paid services (such as those listed here) that can enhance underground communication.	Bitcoin; monero; zecash and Lightning network/ layer2 applications.
Untraceable SIM cards.	Cheap and easily disposable for more secure communications.	Private Simcards: silent. link; bitrefill.
Firmware that enables part of a shared internet (mesh) network.	This is a topology that enables internet connectivity and sharing data through multiple nodes, so dependence on a single node that may be vulnerable is not necessary.	MESH; LibraMESH.
Encryption technology to send messages.	Enhanced private communications.	Pretty Good Privacy (PGP).

RQ3. What associations are drawn between the digital commons and *Sumud* as a framework for connected learning?

The key characteristics from the table above show overlap to *Sumud* with connected learning through a single key point. These resources provide alternative opportunities for users to communicate, network, interact and overall to remain online, regardless of the attempts by big tech to enclose Palestinians into centralised networks where identity and dissent can be extinguished. This has correspondence to the ways in which *Sumud* symbolises a refusal to be removed and a commitment to expansion, rather than restriction.

This indicates what may constitute ‘connected learning’ in the Palestinian HE context while highlighting some of the tensions and barriers that digital technologies can represent. These include connectivity to bandwidth, shown by Gallagher, Najjuma and Nambi (2023) in the case of refugees in Uganda, where some parallels to Palestine paradoxes reside, with a government that restricts civic participation but where digital platforms represent inclusion and the sole means of access to vital services. Digital education platforms provide individuals with the opportunity to acquire knowledge and skills at their own pace, regardless of location. This is particularly helpful for those marginalized and disconnected, such as women facing socio-political constraints, students with special needs or individuals living in marginalized areas.

Indigenous knowledge, imbued directly into education as ‘culturally relevant pedagogy’ (Luna-Thomas & Romero-Hall 2023), has been shown as critical to preserving identities and heritage and fostering “democratic, socially just and inclusive virtual classrooms” (2023: 152). This culturally situated strand to pedagogy is imperative when conceptualizing ‘connected learning for people’ displaced from their homeland, symbolic variously of loss, memory, resilience, hope and safety. This is seen from the comment from the Gazan educator talking of using the

metaverse to figuratively travel; evidently, pedagogy for the displaced must be inward and outward-looking, connecting people from the inside to the outside world and enabling social and educational aspiration (Akinlar et al. 2023).

We may touch on the role of teachers with *Sumud*. Many displaced and vulnerable people to whom this concept may apply may have no formal access to teachers yet still yearn for education, which the digital commons may give them remote access to. Hamed (2023) shows how teachers are elevated: العلماء ورثة الأنبياء, which translates as ‘scholars are the heirs of the prophets’. This indicates that a “deference of teachers means they are the ones who own the true answers” (2023: 51). While Muhtaseb, Traxler and Scott (2023) acknowledge how social media use in education narrows the gap between teachers and students, a recognition is made above that when students are connected with more teachers, more truth can be shared, that is the types of informal learning afforded by the digital commons, whether a VE or other affinity spaces and communities. This is akin to the connected communication we have referred to earlier through *Sumud* as a tree that grounds and connects participants to the culture, with communications sharing information.

The connectivity between home life and the wider world is so crucial to the people of Palestine in terms of an exchange that brings some equity to life experience. In learning a foreign language, the curriculum focuses very much on the home, as explained in knowledge exchange workshops with TEFL educators: “We’ve written about language, about culture, weddings, any things that help our students to interact with each other and build their abilities, understanding about anything, about everything.” This connection to home life should be no surprise coming from refugees exiled and displaced in their own land. Connected learning here also acknowledges the international contributions and collaborations that support educational programs in light of the difficult circumstances that accompanied the closure of educational institutions during the last decades of occupation. *Sumud* is shown here as the solidarity that brings these worlds together and forges the Palestinian identity, its determination and intention to achieve freedom by sticking to their land and living a secure, dignified future.

The importance of connecting with the global community was emphatically made in our call from Rushdi: “I highly recommend that we hold some kind of session with international students from all over the world to meet in one room and discuss any issue.” A distinctive phrase here is ‘to meet in one room’, which imbues a sense of unity that, even if taken as being ‘virtually’ in one room, through the metaverse or another format, is symbolic when it’s recalled that the statement is made by Rushdi, in Gaza, which is now so severely disconnected from the wider world.

CONCLUSION

The authors stress the importance of honouring Palestinian values is foremost in connected learning at a local level. *Sumud*, as a metaphor, represents multiple concepts. Central to these is connectedness, which is shown as a collective, its communications and interactions, reaching out to emancipation but grounded and connected to its territory. *Sumud* can symbolize a pedagogical principle for connected learning, with culture and nourishment as the grounding force of individual and collective spirit. It goes beyond the survival of the sovereign state to represent resilience, hope and aspiration and freedom, as branches of learning that connect these values. Investment in education is the most significant investment a community can make in its youth since it can foster sustainable development, overcome barriers, and instil resilience and self-sufficiency. By enabling individuals to become self-reliant and persevere in the face of adversity, education embodies the true spirit of *Sumud*. It instils a sense of purpose, determination, and the will to thrive despite difficult circumstances – a quality that is central to the Palestinian identity and *Sumud*. We assert that these experiences can be founded in the digital commons, where more autonomy, privacy and anonymity are possible. The connections in Palestine itself between communities to sustain their sovereign identity forged through unbroken networks are of huge importance; the more reaching connections from Palestine to the wider world are critical.

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