Network for Information and Digital Access

The impact of Science Literacy delivery methods - what works?

Strengths, Weakness, Costs and Feasibility

GROUP 5. Online interactions

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NOTES
n.d. = no data provided

GROUP 5. Online interactions						
Mechanism	**Content of use**	**Strengths**	**Weaknesses**	**Costs and feasibility**	**Notes**	**Reference**
35. Blogs	Health research [Healthcare and Medicine, Social science]	The review demonstrated that blogs have potential as a qualitative health research tool for a range of purposes, including data collection. Blogs also have particular application for researchers accessing populations beyond their physical reach. The characteristics of Blogs align with common qualitative methodologies for gathering information about experiences, perceptions and feelings over time making blogging a useful qualitative tool for researchers. The use of blogs as a research tool enables researchers to gain instantaneous access to distant populations, and provide research clarity and transparency with the benefit of a built-in audit trail. They also circumvent the need for lengthy transcription. For the participants, their voices can be captured and disseminated through blogs, close to their vernacular intent, with the added advantage of the choice to remain anonymous in both their writing or responses.		Researchers argue that blogging could serve as a low-cost, global and instantaneous data collection tool for health research capturing data either at a certain point in time or across space and time.	New communication technologies, such as blogs, are a central part of contemporary global transformation, and should be considered as important in emerging qualitative research methods.	**Using Blogs as a Qualitative Health Research Tool: A Scoping Review** Wilson, Kenny, and Dickson-Swift 2015
36. E-Books						**NO REVIEWS**

37. e-Zines					**NO REVIEWS**
38. Mobile Apps	Health [Healthcare and Medicine]	Globally, mobile phones have achieved wide reach at an unprecedented rate, and mobile phone apps have become increasingly prevalent among users. The widespread adoption of mobile phones highlights a significant opportunity to impact health behaviours globally, particularly in low- and middle-income countries. Apps appear to be an ideal platform to deliver both simple and effective interventions. One of the primary benefits of apps is their potential for incredibly wide reach. In comparison with text messaging only, mobile phone apps offer more active engagement in health care and improved convenience at substantially lower cost.	Despite their apparent popularity, public and commercial apps have not been comprehensively evaluated to date; they are currently being used without a thorough understanding of their associated risks and benefits (there is a gap between app concept, delivery, and translation into health behaviour change).	Mobile phone apps are seen as a potential low-cost way to deliver health interventions to both general and at-risk populations.	The studies suggest that some features could improve the effectiveness of apps, such as time consumption, user-friendly design, real-time feedback, individualized elements, detailed information, and health professional involvement.	**Can Mobile Phone Apps Influence People's Health Behavior Change? An Evidence Review** Zhao, Freeman, and Li 2016
38. Mobile Apps	Health promotion, Diet & Nutrition [Healthcare and Medicine]	Apps seem to be a promising health promotion strategy as a monitoring tool. The apps enable users to set targets and self-monitor, provide tailored feedback, and subsequently raise awareness and increase motivation.	The limited number of publications concerning apps indicates the difficulty of capturing technology in science. Because of the dynamic and rapid development of apps and the long processes of doing research and publishing, it is difficult to provide up-to-date information.			**Using Mobile Apps to Promote a Healthy Lifestyle Among Adolescents and Students: A Review of the Theoretical Basis and Lessons Learned** Dute, Bemelmans, and Breda 2016

38. Mobile Apps	Science education [Social science]	There is great potential in using mobile devices to transform how we learn by changing the traditional classroom to one that is more interactive and engaging. It allows educators to teach without being restricted by time and place, enabling learning to continue after class is over or outside the classroom in places where learning occurs naturally. It also gives educators the ability to connect with learners on a more personal level with devices that they use on a regular basis. Finally, sensing technologies enable learning to be personalized and customized to the individual learner.				**Mobile apps for science learning: Review of research** Zydney and Warner 2016
38. Mobile Apps	Health promotion [Healthcare and Medicine]	Smartphone applications (apps) are well accepted among mobile phone users. Mobile applications can easily be downloaded and a large number of users can receive tailored text messages and information at low cost.			A World Health Organization (WHO) report suggests the global penetration of mobile phones has potential to enhance availability, accessibility, innovation, cost effectiveness, real-time access to information, and portability to health service and promotion interventions.	**Effectiveness of Mobile Apps for Smoking Cessation: A Review** Regmi et al. 2017
38. Mobile Apps	Health [Healthcare and Medicine]	Mobile applications for diabetes self-management are promising and proliferating at a very high rate, though limited efficacy data are currently available.	A major challenge to the effective use of apps for chronic disease management is the overwhelming number of apps that are currently available. This makes it difficult for patients and providers to stay informed about app options.			**What do we know about mobile applications for diabetes self-management? A review of reviews** Hood et al. 2016

38. Mobile Apps	Health [Healthcare and Medicine]	Advances in mobile phone technology coupled with increased availability and adoption of health-focused mobile apps have made self-management more achievable, but the extent and quality of the literature supporting their use is not well defined. Community health centers and clinics that care for vulnerable populations overwhelmingly perceive mobile health technologies as an ideal tool to engage their patient populations in chronic disease management.				**Patient-Facing Mobile Apps to Treat High-Need, High-Cost Populations: A Scoping Review** Singh et al. 2016
38. Mobile Apps	Health [Healthcare and Medicine]	Mobile devices offered students a great opportunity to access and use a wide array of information and learning resources and application tools at a time and place when it was convenient. They served as a primary tool for accessing health information resources or locating the evidence to support evidence-based practice or clinical decision making in patient care settings. They were also used for distributing learning resources and tools to enhance, consolidate, reinforce, or monitor medical and nursing students' learning, and help them study for exams. Beneficial effects of mobile devices were evidenced through studies demonstrating their portability, convenience, and instant access to	The findings of the studies suggested several conspicuous challenges or barriers faced by students in using mobile devices, such as unstable WiFi or Internet connections, slow data processing, short battery life, and small screen size. There were other technical, interface, cost, security, and social perception concerns with the use of mobile devices and apps.	The existing drawbacks in mobile resources may inhibit their wide use and adoption in specific settings. It is clear that existing technical, contextual, and cost factors merit attention when implementing a mobile programme to enhance e-learning and teaching and support clinical practice.	Notwithstanding the drawbacks inherent in various types of mobile devices, the rapid development of mobile technologies will give rise to new and creative opportunities to design learning differently, extend learning spaces in real and virtual worlds, and foster a habit of lifelong learning.	**Use of Mobile Devices to Access Resources Among Health Professions Students: A Systematic Review** Mi et al. 2016

		a wide range of knowledge-based or learning resources and mobile apps favoured by users.				
38. Mobile Apps	Health [Healthcare and Medicine]	Mobile phones have portability, constant Internet connectivity, and increasing capacity to run complex apps, which makes them ideal tools in health services to collect personal information, provide personalized intervention, and potentially save time and cost as compared to standard health care. Mobile phone apps can be a useful educational strategy for GDM women with low health literacy due to the apps' flexibility of providing tailored information.		The increasing ownership of mobile phones and advances in hardware and software position these devices as cost-effective personalized tools for health promotion and management among women with GDM. Mobile phone apps can provide time- and cost-efficient personalized interventions for GDM.		**Functionality, Implementation, Impact, and the Role of Health Literacy in Mobile Phone Apps for Gestational Diabetes: Scoping Review** Chen and Carbone 2017
38. Mobile Apps (focus on smartphone)	Agriculture [Life science]	Among the technologies invented in the past few decades, smartphones have gained large market shares among various user sectors due to their usefulness, ease-of-use, and affordability. One factor that enhances the smartphones' ability to assist users to perform various tasks is the numerous built-in sensors (e.g., positioning sensors, motion sensors, and cameras microphones), which make them a promising tool to assist diverse farming tasks. Inexpensive smartphones equipped with various sensors are opening		Smartphones have become a useful tool in agriculture because their mobility matches the nature of farming, the cost of the device is highly accessible, and their computing power allows a variety of practical applications to be created.		**Applications of Smartphone-Based Sensors in Agriculture: A Systematic Review of Research** Pongnumkul, Chaovalit, and Surasvadi 2015

		new opportunities for rural farmers who previously had limited access to up-to- date agricultural information (e.g., market, weather, and crop disease news) and assistance from agricultural experts and government extension workers.				
38. Mobile Apps	Health promotion, Diet & Nutrition [Healthcare and Medicine]	Smartphone apps can have a variety of features including visually engaging design, video and audio capabilities, unrestricted text capabilities, access without cellular or Internet connection, optimized smartphone screen size, content sharing via social media, and tracking progress anywhere and anytime. Mobile phone apps provide a useful and low-cost way to disseminate cancer prevention and control information to the general population and to particular at-risk populations.			Research-tested mobile phone apps are also needed for non-English speakers or for persons with low health literacy.	**Mobile Phone Apps for Preventing Cancer Through Educational and Behavioral Interventions: State of the Art and Remaining Challenges** Coughlin et al. 2016
38. Mobile Apps	Health [Healthcare and Medicine]	Mobile health (mHealth) offers a particularly powerful and ubiquitous platform for delivering mental health interventions to adolescents. Advantages of mHealth include constant availability, greater access, equity of mental health resources, immediate support, anonymity, tailored content, lower				**Mental Health Mobile Apps for Preadolescents and Adolescents: A Systematic Review** Grist, Porter, and Stallard 2017

		cost, and increasing service capacity and efficiency. Apps may overcome geographical barriers to treatment and engage traditionally hard-to-reach groups. It has been suggested that technology-based approaches may be particularly suited for children and young people who may be more accepting of technology. Apps may reduce barriers to face-to-face help-seeking, such as the stigma or discomfort about discussing one's own mental health. Therefore, mental health apps may engage young people who typically would not seek help through traditional routes.			
38. Mobile Apps	Health [Healthcare and Medicine]	MHapps and other technology-based solutions have the potential to play an important part in the future of mental health care, making mental health support more accessible and reducing barriers to help seeking. Innovative solutions to self-management of mental health issues are particularly valuable, given that only a small fraction of people suffering from mood or anxiety problems seek professional help. Even when people are aware of their problems and are open to seek help, support is not always	Many MHapps have not capitalized on the strengths and capabilities of smartphones. Design principles that have led to the huge success of many physical health and social networking apps have not been utilized in the MHapp field. Furthermore, evidence-based guidelines that have been developed for other self-help mental health interventions have not been applied to many MHapps. For example, many available MHapps target specific disorders and label their users with a diagnosis. Much research has suggested that this labelling			**Mental Health Smartphone Apps: Review and Evidence-Based Recommendations for Future Developments** Bakker et al. 2016

		easily accessible, geographically, financially, or socially. Smartphones are not constrained by geography and are usually used privately by one individual. This means that smartphone apps can be extremely flexible and attractive to users, empowered by the confidentiality of their engagement. Seeking help by downloading and using an MHapp is well suited to the needs of young adults and other users with a high need for autonomy. Users also prefer self-help support materials if they are delivered via a familiar medium, such as a personal smartphone. Smartphones apps are almost always accessible to users, so they can be used in any context and in almost any environment. Using these apps, users can remind themselves throughout the day of ongoing goals and motivations, and be rewarded when they achieve goals.	process can be harmful and stigmatizing. There also appears to be a lack of appreciation for experimental validation among MHapp developers. There is a risk of researchers developing MHapps primarily for research needs rather than to meet the needs of end users. When an MHapp is released to the public, it is a self-contained product and must operate efficiently in the user's daily routine. For MHapp research to be ecologically valid, MHapp developers must create self-contained apps that still function outside of a research setting. Several RCTs have been conducted on MHapps that are not publically available. This prevents researchers and intervention developers from analysing and exploring existing evidence-based MHapps. It also blocks help seekers from finding evidence-based MHapps and benefiting from effective support.			
38. Mobile Apps	Health [Healthcare and Medicine]	Dietary apps for mobile technology are becoming increasingly available and can assist in recording food and fluid intake for nutrition assessment or monitoring.				**Dietary mobile apps and their effect on nutritional indicators in chronic renal disease: A systematic review** Campbell and Porter 2015

		The included studies in the review show potential for clinical benefits of mobile app interventions in patients with renal disease.			
38. Mobile Apps	Health, health promotion [Healthcare and Medicine]	Self-administered tools have the potential to reduce staff burden and costs, interview bias, and feelings of embarrassment among individuals with low health literacy.	Individuals with low health literacy are less likely to use the Internet to access health information than those with high health literacy (Jensen et al., 2010). Individuals' low health literacy is a significant barrier that constrains their Internet use and prevents adequate access to health information.		Promotion of features such as simple interface design, visual information, animations, text-to-speech engines, dictionaries, and links to more online resources can serve people with low health literacy across different types of service platforms.	**Health literacy and internet- and mobile app-based health services: A systematic review of the literature** Kim and Xie 2015
38. Mobile Apps (focus on iPad)	Education [Social science]	iPads were used in different ways by different users, mainly as a tool to access course resource and library databases, a note-taking tool, a communication tool, a presentation/projection device and as a device for online assessment. iPads were found to be useful in engaging students with the learning materials, but its association with learning outcome was inconclusive. iPads were found to be a good tool to provide instant access to rich learning materials and to the Internet resources from YouTube, Google Scholar and Blackboard. iPads were also used by students to take notes and present their work during class. They were found useful for note taking, highlighting texts or taking pictures.	Academics were not clear about their roles and need a clear pedagogical approach to mobile learning. A consistent finding across several studies was that iPads could potentially be a distraction because of non-educative usage. The reported research findings suggest a high level of technology acceptance by the learner community; however, there is a lack of innovative pedagogical guidelines on how best to use this device to improve academic processes and achievements.			**iPads in higher education-Hype and hope: iPads in higher education-Hype and hope** Nguyen, Barton, and Nguyen 2015

		Students found iPads to be a good tool for communication, interactions and collaboration- sharing their group work and receiving feedback from peers and academics. Academics found iPads to be a good communication tool, a good tool for convenient and fast access to course and library materials during class, for and motivating students' learning. Students and academics agreed that iPads were easy to use. Students found iPads to be a useful tool to increase flexibility, portability and productivity because they are small in size, easy to use and apps could be loaded.				
38. Mobile Apps	Education [Social science]	While there is much to be done in the way of rigorous evaluation of these and other promising interventions, the potential for cost-effective, ground-breaking, and scalable application of mobile technologies to advance literacy worldwide is truly impressive.				**Mobiles for Reading: A Landscape Research Review** Wagner 2014
38. Mobile Apps	Health, health promotion [Healthcare and Medicine]	Mobile phone technology might help to increase access to tools in Cardiovascular disease (CVD) prevention and reduce inequalities in prevention of cardiovascular disease, although some challenges	However, a digital divide still exists between socioeconomic groups, where people in low socioeconomic groups retain old technologies, such as mobile telephones that can only send and receive short			**The mobile revolution-- using smartphone apps to prevent cardiovascular disease** Neubeck et al. 2015

		remain, particularly for elderly users. Opportunities exist to use apps for prevention of cardiovascular disease throughout the life-course. Apps are potentially much easier than print material to modify with the latest information. Health-related apps are becoming an integral part of current medical practice, because of their potential both to improve efficiency of provision and to overcome barriers of distance to service providers.	message service texts, and which do not have apps. A major limitation is the long period of time research takes relative to the release of new apps (a conservative estimate suggests this process takes ~5 years, although translation of research into practice often takes up to 17 years). The long period of time required to research apps means that the app might have been superseded by the time that the results of the study are published.		
38. Mobile Apps	Health [Healthcare and Medicine]	The potential of mHealth is particularly significant for younger populations, who have a high level of cell phone use across diverse socio-demographic domains. The ubiquity of mobile phones was considered advantageous in extending service outreach and facilitating large-scale interventions and in lowering the barrier to healthcare access. Additionally, authors frequently mentioned user-friendliness of mobile phones as a strength. Rapid and timely communication is a feature of mobile phones that makes them efficient in gathering patient-generated data in situ, increasing treatment compliance	The most commonly stated concerns were ensuring confidentiality and privacy. mMental Health data generated by young patients are often personal and sensitive, and this raises concerns about how these data are handled, transmitted, and stored. In addition, the potential loss of the mobile device was another commonly identified privacy concern. Another challenge mentioned related to technical difficulties pertaining to programme implementation and operation. The persistent and compulsive nature of self-monitoring tools also	Cost-efficiency was another common strength suggested by many articles, although few demonstrated this effectively with statistical data.	As the new generation of cell phones (i.e., smartphones) combine advanced computing functionalities with wireless Internet features, more and more mMental Health tools will harness advanced multimedia technologies such as gaming, virtual reality, and social networking services attractive to youth.	**Youth Mental Health Interventions via Mobile Phones: A Scoping Review** Seko et al. 2014

		and, if necessary, offering some interventions on the spot. Interactivity of mobile phones was identified as a potential prompt for a therapeutic relationship between young patients and healthcare professionals. The personal nature of the cell phone was considered as a strength. Advanced mobile technologies can contribute to improve patient-centered care for youth growing up in our increasingly tech-savvy society.	warrants particular caution, as it may put youth under too much pressure to monitor their own mental health constantly. Being unable to adhere to the monitoring routine may also contribute to feelings of shame and guilt, which could reduce control users have over the ways they interact with interventions.		
39. Podcasts	Education [Social science]	The use of m-learning tools, if correctly conceptualized and built, constitutes an efficient complementary tool to the traditional teaching methods. Podcasts are one of the web 2.0 technologies that can be used in the education sector.			The research points the need to incorporate other techniques of sharing of podcasts among students, for instance, Bluetooth, a free wireless technology standard for exchanging data over short distance.	**Methods of Investigating the Use of Podcasting in Higher Education: A Review of Recent Studies** Oloo and Elijah 2015
39. Podcasts	Health [Healthcare and Medicine]	Podcasting is a cost-effective communication tool whose potential impact for public health has been widely touted. According to peer-reviewed and grey literature, health podcasting is feasible and cost-effective.	Podcasting may be time-consuming.	Podcasting is a cost-effective communication tool in the Health 2.0 landscape. They can be produced by amateurs with little technological expertise and distributed widely at minimal cost.		**How could an effective podcast about alcohol use be designed and evaluated? A review of the literature** Williams 2015

		Of particular note is the importance of entertaining the target audience. Humour and the use of narrative can contribute to the entertainment value of a podcast. Podcasts can empower listeners with health information and create social networks for information-sharing. Podcasts are uniquely accessible in a number of ways: they require less literacy than text-based resources; they are easy to share via social media, websites, and email; and they can be accessed on mobile devices while driving, commuting, exercising, or doing other activities of daily life. Furthermore, certain features of podcasts align with larger media trends: for example, they are compatible with the public's increased expectation of content on-demand entertainment (e.g. streaming television shows from Netflix as opposed to watching them at a particular time on a particular day of the week) and they are generally designed for niche audiences, which is a much larger trend in our increasingly fragmented media landscape. Podcasts may be particularly good vehicles for emotional intimacy and disclosure. Podcasts provoke more		There are no geographic limits to their reach: they can be distributed and shared to anyone who has access to the Internet.		

		emotional responses than written information on a website.				
40. Social media	Health [Healthcare and Medicine]	Advocates of the use of social media in healthcare suggest that these tools allow for personalisation, presentation and participation—three key elements that make them highly effective. The content can be tailored to the priorities of the users; the versatility of the different platforms creates numerous options for the presentation of information, and the collaborative nature of social media allows for a meaningful contribution from all user groups. The idea of a synergistic relationship between social media users is one of the main perceived advantages of using these platforms. These studies also suggest that social media has the potential to move beyond providing supportive online communities and could have widespread utility within the healthcare setting. However, these applications are dependent on further evidence of effectiveness.	The availability of misinformation is a risk, as healthcare providers are unable to control the content that is posted or discussed. Inappropriate substitution of online information or advice for in-person visits to a healthcare provider can also potentially lead to harmful results, and this has been cited as a limitation of the use of social media and of the internet generally. Negative uses of social media have also been highlighted in the context of professionalism and confidentiality, use by children and youth due to a limited capacity for self-regulation and vulnerability to peer influence, and promotion of high-risk behaviours, such as suicide-related behaviours, drug use and eating disordered behaviours.	With applications that directly target health outcomes, social media could present a cost-effective and wide-reaching modality for administering certain types of interventions. This could be particularly advantageous when logistics make arranging in-person appointments difficult, for example, in hard to reach populations, or when geography is an issue.	Social media is a relatively new concept that is continually undergoing transformation. As such, there is no universal definition, adding complexity to the process of determining study eligibility. The constantly changing nature of social media also proved challenging in defining the literature search, and the novelty of the topic made it difficult to keep the search updated due to a steady influx of new reports.	**Social media use among patients and caregivers: a scoping review** Hamm et al. 2013
40. Social media	Health, health promotion [Healthcare and Medicine]	Social media use has been increasing in public health and health promotion because it can remove geographic and physical access barriers.	Social media interventions have the potential to increase health inequities for people who do not have access to or do not use social media.			**Interactive social media interventions to promote health equity: an overview of reviews** Welch et al. 2016

		Social media interventions were effective in certain populations at risk for disadvantage (youth, older adults, low socioeconomic status, rural), which indicates that these interventions may be effective for promoting health equity. However, confirmation of effectiveness would require further study.	The main concern common to several populations is the possibility of limited access to the Internet (e.g. homeless people or low-income elderly adults). To mitigate inequities, health promotion using social media may require providing access to the Internet and computers/mobile devices. Since newer social media interventions are designed to build on individuals' existing social networks, people with few social networks may be at a disadvantage (e.g. low-income seniors have few ties other than their grandchildren). However, people with few social networks tended to use social media more, suggesting they may benefit from these interventions. Several reviews raised the acceptability of social media interventions as a concern. Acceptability may relate to cultural acceptability and norms (such as with one study designed for a Hebrew-speaking audience) or to population-specific preferences (e.g. one review of older adults reported unfamiliarity with Facebook). Several reviews proposed that user testing and acceptability testing would be useful to increase the likelihood that social media interventions will			

			be taken up by the target populations. The reviews reported that privacy concerns and confidentiality may be an issue for certain populations such as older adults and may affect the use of social media interventions. Quality control on social media sites, such as that provided by a moderator, might help reduce privacy concerns and encourage use. Some populations may be particularly sensitive to hostile or misleading comments. If so, these interventions may be designed to allow a moderator to limit access to the social media group to reduce the risk of inappropriate use.			
40. Social media	Diet & Nutrition [Healthcare and Medicine]	Social media platforms are novel avenues with high reach potential of dissemination that can be used by healthcare professionals to improve knowledge translation of evidence-based health information to health consumers and patients. Furthermore, social media represents valuable additions to traditional face-to-face clinical encounters to deliver behavioural interventions notably to support long-term and sustained dietary behaviour change efforts for chronic disease management and prevention.	Barriers to social media use were mostly related to complicated access to the site and time issues.			**Users, Uses, and Effects of Social Media in Dietetic Practice: Scoping Review of the Quantitative and Qualitative Evidence** Dumas, Lapointe, and Desroches 2018

		Social media can be used for numerous purposes in dietetic practice, including public health.				
40. Social media	Health [Healthcare and Medicine]	Social media may offer scope to help ease the burden of self-management for chronic disease sufferers and may be a suitable means to provide clinical care and meet patient needs otherwise not being met in face-to-face environments. Social media fosters support, information sharing, empowerment and improved disease-specific knowledge. Other perspectives on social media include affordances outside the health context. For example, the review proposes affordances of visibility, persistence, editability and association. Visibility refers to social media's ability to make user behaviour, knowledge, personal information and networks visible to others. Persistence pertains to the lingering availability of information communicated through social media even after it has occurred. Editability refers to the ability to refine and craft communications before and even after it is viewed by others. Finally, association is the connection between/ among individuals and individuals to content.				**Health outcomes and related effects of using social media in chronic disease management: A literature review and analysis of affordances** Merolli, Gray, and Martin-Sanchez 2013

| 40. Social media | Health [Healthcare and Medicine] | Social media is a powerful tool, which offers collaboration between users and is a social interaction mechanism for a range of individuals.

Social media brings a new dimension to health care as it offers a medium to be used by the public, patients, and health professionals to communicate about health issues with the possibility of potentially improving health outcomes.

The key overarching benefits identified are:
• increased interactions with others
• more available, shared, and tailored information
• increased accessibility and widening access to health information
• peer/social/emotional support
• public health surveillance
• potential to influence health policy. | Limitations primarily consist of quality concerns and lack of reliability, confidentiality, and privacy.

Social media users are often unaware of the risks of disclosing personal information online and with communicating harmful or incorrect advice. As information is readily available, there is the potential of information overload for the user. | | | **A New Dimension of Health Care: Systematic Review of the Uses, Benefits, and Limitations of Social Media for Health Communication** Moorhead et al. 2013 |
| 40. Social media | Education [Social science] | Facebook is an informal, dynamic, social and flexible environment where more or less structured learning experiences can take place.

Some study assessed Facebook as an environment that facilitates the interplay between formal education and real life, bridging personal experiences and | Social network sites have their own 'grammars' that (young) people have to learn for a proper and aware use. Either formal or informal, the use of Facebook requires digital and media literacy skills in order to face the cognitive (e.g., information overload and reliability) and ethical challenges (e.g., privacy) that are implied in these sites. | | | **Is Facebook still a suitable technology-enhanced learning environment? An updated critical review of the literature from 2012 to 2015: Is Facebook a suitable TEL environment?** Manca and Ranieri 2016 |

		institutional knowledge and enabling the connection of course materials to timely real-world examples, also by supporting self-directed learning.				
40. Social media	Health [Healthcare and Medicine]	Social media provides users with the opportunity to generate, share, and receive information through bi- and multidirectional exchanges, which may transcend geographic borders and provide an opportunity for anonymity. Although stigma and cultural context may prevent people living with HIV/acquired immunodeficiency syndrome (AIDS) and at-risk populations from accessing in-person HIV prevention and treatment initiatives, social media can offer a neutral platform for engagement. Additionally, the increased social support provided by social media has been shown to improve treatment adherence and access to HIV testing and prevention services, and assist with coping with HIV-related stigma. As the globalization of HIV and its presence in more geographically distant and underserved communities increases, social media provides an opportunity to extend the reach of HIV prevention and treatment efforts.	Health care professionals in some of the selected studies reported limitations in their ability to form relationships with social media users in comparison to face-to-face interaction. This limitation may have an effect on user satisfaction and use of the platform, which is a matter of concern given the recent increase in digital interactions within health care.	Developing new social media platforms may be costly or resource intensive.		**Social Media and HIV: A Systematic Review of Uses of Social Media in HIV Communication** Taggart et al. 2015

		Social media platforms have varying designs and features, such as options for anonymity, which can be tailored to meet the needs of target populations and increase use and acceptability of the platform. Anonymity allows users to control the information they disclose about themselves, which may allow marginalized populations to feel more comfortable communicating about HIV on social media platforms.				
41. Websites						**NO REVIEWS**
42. Wikis	Health [Healthcare and Medicine]	Collaborative writing applications (CWA) (e.g. wikis and Google Documents) hold the potential to improve the use of evidence in both public health and health care. Many positive effects are attributed to the use of CWA in the education of health professionals and in knowledge translation.	Questions remain about the safety, reliability, lack of traditional authorship, and the legal implications for decision making regarding the use of CWAs in health care. A series of perceived negative effects (i.e. information overload, fast dissemination of poorly validated information, loss of autonomy, feeling of working in isolation, increased stress, perceived unequal distribution of tasks within teams, biased editing, editing wars, and vandalism/wikispam) that could mask some of the positive effects of CWAs.	Wikis have come to exemplify social media's tremendous promise to enable health professionals, patients, and policy makers to implement evidence-based practice at remarkably low cost.		**Wikis and Collaborative Writing Applications in Health Care: A Scoping Review** Archambault et al. 2013
42. Wikis	Education [Social science]	Wikis hold great potential as an instructional strategy to aid students in learning various skills	Collaboration does not occur easily or without guidance. Nurse educators need to anticipate the			**Evaluating the Impact of Wikis on Student Learning**

		(i.e. improving writing performance) and gaining new knowledge. Wikis allow learners to interact with each other within a virtual learning environment, rather than passively listening to an instructor. This virtual learning environment creates a social space where students can appreciate divergent views and demonstrate team-based skills. Wikis also provide an archive of interaction, similar to an audit trail, documenting the evolution of co-constructed documents. Wikis offer potential application in nursing education by allowing communities of users to share like interests and learn through the support of technology. Wikis help to construct knowledge by linking and connecting individuals within a learning environment. Wikis facilitate learning among all users by offering a platform or connection for students to share their perceptions while learning about the perceptions and thoughts of others. Wikis offer great potential to complement and improve online collaboration because they allow	discomfort of students using wikis, be clear on expectations for editing, model expected behaviours, provide timely feedback, offer rewards for contributions, and monitor students closely for contributions.			**Outcomes: An Integrative Review** Trocky and Buckley 2016

| | | students to interact with their peers through a sharing and creation of knowledge and reflection on new ideas.

The use of a wiki for a writing assignment has the potential to expand the amount of feedback from only one instructor to peers, and also allow faculty to review the work during the development process. Moreover, the development and refinement of peer evaluation skills with respectful communication are critical for safe and effective practice in health care settings.

Wikis have the potential to mediate the learning context by providing opportunities for learning that is continuous, self-directed, and collaborative.

Wikis support the development of a community of learners who engage through cognitive and social processes, leading to improved learning outcomes.

In some cases, wikis used as a centralized repository supported and facilitated student learning by allowing them to easily access information that could be applied in the clinical setting.

A wiki has the potential to be an accessible user-friendly space, | | | | |
|---|---|---|---|---|---|---|

		where users can easily locate, create, edit, and share information.				

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