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Youth digital participation: measuring social impact

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Abstract

Current scholarly debate around digital participatory youth projects and approaches to their evaluation are examined in this article. The analysis of the literature presented here reveals (1) an over-reliance on traditional evaluation techniques for such initiatives, and (2) a scarcity of models for the assessment of the social impact of digital participatory youth projects. It is concluded that the challenges and limitations of social impact evaluation practice in digital participatory youth projects should be addressed through the adoption of alternative, participant-centred approaches. These issues are discussed in reference to a current ongoing study that seeks to identify solutions for enhancing social impact evaluations of participatory digital initiatives by young people.

Keywords

digital participation, digital youth, youth participation, social impact, social impact evaluation, participatory evaluation

Introduction: evaluating the social impact of youth digital participatory projects

The social impact of digital youth participation and a scarcity of models for its assessment are examined in this article. The main questions addressed here are: 1) What is known about the value of youth digital participation? 2) What methods are currently used to analyse young people’s relationship with digital technologies? 3) To what extent could the adoption of alternative, participant-centred approaches to evaluation alter the current assessment practice of digital youth participatory projects?

Through gaming, social media, email, photography, and film making, youth workers across Europe have introduced digital technologies into their practice (Harvey, 2016). Digital media are no longer considered merely additional or entertaining elements, but core communication and engagement tools used by young people. However, while many youth organisations have successfully implemented digital technologies in their work, they also claim that measuring the social impact of youth digital initiatives has become increasingly difficult, with youth practitioners asking questions like: “How do you measure young people’s [digital] skills if you don’t know yourself what the [digital] skills should be (as older person!)” (#NotWithoutMe, 2017).

Whilst the notion of digital youth participation has emerged as an important topic among research community, there is currently limited understanding of practical ways to measure the impact of youth digital participatory projects. Scholars (Mackril and Ebsen, 2017) and youth practitioners alike (#NotWithoutMe, 2017) have called for further research into social impact evaluation of interactions between young people and digital technologies. This article addresses this research gap by reviewing literature from the areas of youth studies, youth participation, digital media, information science, and social impact assessment and evaluation. The article discusses publications dated from the 1990s to 2017 and includes both academic publications and practitioner documentation and reports. Additionally, it makes two actionable recommendations relevant to practitioners seeking to address this gap in their work with young people.

The paper first gives a brief overview of the recent history of youth participation and digital youth participation. Here, the terminology used to define young people’s relationship with the digital world is analysed (Table 1). In the context of this article, digital youth participation is conveyed as young people’s active engagement in the “mediated world shaped by multimodal, interactive, convergent, and networked media” (Livingstone, 2012:1). Social impact analysis and evaluation terminology in the academic literature are also examined, followed by a brief overview of the history of social impact assessment and its progressive shift from technocratic to participatory methodologies. This provides an overview of how the role of evaluation participants has evolved from being subjects of the process to becoming active evaluation partners. Consequently, appropriate participatory methodologies to assess the impacts of youth-centred initiatives are identified. Due to the continuing formation of new digital media in the 21st century, it is argued that young people should be considered as experts of their own digital experiences and play an active role in evaluation. The concept of participatory evaluation is considered in the context of digital youth participation, and five considerations for the use of participatory evaluation of digital youth participation are identified: 1) Participation, 2) Knowledge co-creation, 3) Power dynamics, 4) Learning, 5) Play.

Based on the literature review and analysis, two key recommendations for social impact evaluation of youth digital participatory projects are presented. Firstly, it is advocated that conscious recognition of young people as the experts of their own participatory digital experience could aid the current evaluation process. This is particularly important in digital youth settings, where young digital citizens’ expertise and unique perspectives can easily be undervalued. Secondly, the paper emphasises the importance of developing more holistic and participant-centred approaches to social impact evaluation of youth digital participation. Holistic and reflective assessment processes might not only improve the evaluation data for project organisers, but also enhance the experience for young participants themselves. Most importantly, considering the complex and multi-layered nature of digital youth participatory projects, holistic methods might provide more insightful perspectives and analysis, and as a result, empower young people to reclaim their voices in the discourses around the value of digital youth participation.

Youth participation in the digital age: origins and terminology

While various definitions of youth can be found in literature, this article adopts that of the European Union, which defines young people as those aged 15-29 (Coyette et al, 2015). A considerable amount of literature has been published on youth participation (Checkoway and Gutiérrez 2006; Checkoway and Richards-Schuster 2005; Egbo 2012.; Head 2011; Loncle et al. 2012; Print 2007; Richards-Schuster and Pritzker 2015). Youth participation is viewed globally as a right protected by the Convention of the Rights of the Child, which was established in 1959, and served as the basis for the Convention of the Rights of the Child (CRC) adopted by the United Nations in 1989. Articles 12-15 are concerned with the specific rights of young people to participate, voice their opinions, freely assemble, and engage in discussions relating to their well-being (McMillan and Simkiss, 2009). Young people are therefore perceived not only as vulnerable members of society, but as equal contributors and potential agents of change (Richards-Schuster and Pritzker, 2015). Meaningful involvement of young citizens can lead to social change, thus “helping people to participate must be not restricted to asking their options” (Loncle et al., 2012:3).Meaningful participatory initiatives aim to enhance social competence and responsibility, community development, and political self-determination (Hart, 1992). The process of shared decision-making is the key element of participation (Hart 1992; Loncle et al., 2012; Checkoway & Gutiérrez, 2006). According to the European Commission, it is vital to ensure that young people are “involved in the decisions which concern them and, in general the life of their communities” (Loncle et al., 2012, p.2).

The concept of ‘youth participation’ has further developed since the early 2000s in a time during which young people's everyday lives have become more heavily influenced and shaped by “multimodal, interactive, convergent, and networked media” (Livingstone, 2010:1). The changing dynamic of relationships between young people and digital technologies has provided a fruitful stream of research for a number of scholars (Boyd 2014; Buckingham 2008; Ito et al. 2013). They have observed that young people in a digital era are no longer simply passive consumers of information, but are instead active digital participants, makers, and ‘doers’ (Ito et al*.,* 2013:6), who operate in an environment where digital skills have become a necessity. It has been argued that so-called *digital youth* (Ito et al., 2009) are characterised by “non-traditional and innovative information behaviour, including activities related to creative production and sharing” (Koh, 2013: 1827).To examine evolving relationships between youth and technology, and to gain a better understanding of the notion of digital youth participation, scholars have offered numerous approaches with associated terminology (Cohlmeyer, 2014; Ito et al. 2013; Mihailidis, 2015; Quinlan, 2016).

To understand young people’s relationship with the digital world, Ito et al. (2009) have proposed the term *digital youth*, which broadly summarises “the lives of young people in the contemporary society” (Erstad, 2012: 25). Emphasising the empowering effect of digital technologies on youths’ lives, Ito et al. claim that these mediated forms of communication allow the younger generations to actively participate in public debate, amplify their voices, and influence decision making (2015:16). Thus, it can be argued that digital technologies have enhanced the traditional forms of youth participation by providing innovative and interactive tools to connect and engage with peers globally. Further, Ito et al. argue that the digital world provides a dynamic infrastructure where young citizens can “exercise their citizenships and create frameworks for activism” (2015:10).

Elsewhere, Cohlmeyer (2014) suggests the notion of *digital youth work*. Cohlmeyer’s definition suggests that *digital youth work* consists of four components: youth work traditions, digital media and technology, youth workers, and young people (Cohlmeyer, 2014). This term has been practically implemented in the context of youth development by organisations such as YouthLink Scotland (“Youth Link Scotland,” 2017) and Erasmus+ Youth in Action (Kriauciunas, 2016). The processes of learning and creation have also been analysed by Quinlan (2016) who adopted the term *digital making.* In Quinlan’s work emphasises active knowledge acquisition, while producing and learning digital artefacts (Quinlan, 2016). Likewise, the concept of knowledge/information seeking and attainment have been highlighted by the scholars behind the connecting *learning* framework (Ito et al., 2013). The core element of this framework to education is to deploy digital technologies to “enable youth who otherwise lack access to opportunity” (2013: 8). The scholars behind the *connected learning* framework have claimed that to equip youth with skills for the 21st century, it is essential to offer proactive and interest-driven opportunities for learning. Likewise, scholars cited here (Cohlmeyer, 2014; Mihailidis, 2016; Quinlan, 2016; Ito et al., 2013) have acknowledge the importance of youth participation in the digital era. As illustrated by Ito et al.: “Young people are contributing to the health and growth of civic collective, jointly produced stories, and real world social change” (2013:48). Finally, Stornaiuolo and Thomas (2017) have analysed the notion of *youth digital activism*. Debating the role of digital technologies in youth’s lives, Stornaiuolo and Thomas (2017) examined the prominence of using online tools when fighting for social justice. Finally, the term *makers space* has been applied to describe “a collaborative work space inside a school, library or separate public/private facility for making, learning, exploring and sharing that uses high tech to no tech tools” (Makerspaces.com, 2017). Table 1 sets out a comparative assessment of these terms.

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| --- | --- | --- | --- |
| **Name** | **Source** | **Typical Activities** | **Focus** |
| Digital Making | Quinlan, 2016 | Creates something using digital technology.  Learns about how the technology works. | Technology learning |
| Youth Digital  Activism | Stornaiuolo and Thomas, 2017 | Information creation and information sharing using digital technologies. | Advocacy |
| Connected Learning | Ito, Gutiérrez, Livingstone, Penuel, Rhodes, Salen, Schor, Sefton -Green & Watkins, 2014 | Supports understanding of using new media in educational settings.  Highlights digital media as learning enhancer. | Learning, social-equality |
| Digital Curation | Mihailidis, 2016 | Participatory creation of digital content.  Using online communication platforms. | Storytelling, communication, digital literacy |
| Makerspace | [www.makerspacers.org](http://www.makerspacers.org), 2017 | “a collaborative work space inside a school, library or separate public/private facility for making, learning, exploring and sharing that uses high tech to no tech tools” (makerspacers.org, 2017) | Learning, experimentation, digital and non-digital tools |
| Digital Youth Work | Cohlmeyer, 2013 | Traditional youth work practice including digital media and technology. | Youth development, learning, informal education |

**Table 1. Comparative assessment of terms describing young people’s interactions with digital media**

A variety of terms describe young people’s digital lives have been identified in the literature (Cohlmeyer, 2013; Ito et al*.* 2013; Mihailidis, 2016; Stornaiuolo & Thomas, 2017; Quinlan, 2016), here a necessarily broad, but all-encompassing definition of digital youth participation is adopted. Digital youth participation is perceived as a fusion of the traditional forms of youth participation (Checkoway & Gutiérrez, 2006; Checkoway & Richards-Schuster, 2003; Egbo, 2012; Head, 2011) and digital forms of youth engagement (Cohlmeyer, 2013; Ito et al. 2013; Mihailidis, 2016; Quinlan, 2016). In line with Livingstone’s (2012) research, digital youth participation is defined as young people’s active engagement in the “mediated world shaped by multimodal, interactive, convergent, and networked media” (Livingstone, 2012:1). Examples of digital youth participatory projects may include informal educational initiatives such as digital communities and forums, as well as community and after school programms (Lemke et al., 2015). Digital youth participatory projects aim to provide younger participants with collaborative and interactive experiences. Therefore, the activities undertaken vary from creative use of digital storytelling as a form of self-expression (STEP, 2016), all the way to advocacy-focused actions such as online crowdsourcing, petitions or citizen journalism (Adobe Youth Voices, 2017). Digital technologies might be used primarily as a communication tool, and here online groups, texting and instant messaging have provided a focus. Due to “the multimodal, convergent and networked” (Livingstone, 2012:1) nature of the digital youth world, it is impossible to cover all existing tools and emerging tools deployed in youth participation. However, examples of tools include smartphones, laptops, digital cameras, computers or tablets.

The value of digital media to young people: discussion on the impact of youth digital participation

Digital media are frequently cited as tools of empowerment for young people (Erstad, 2012; Livingstone and Sefton-Green, 2016). For example, it has been argued that young people can alter the ways in which “people live, work, play, relate to another, organise to meet their needs, and generally cope as members of society” (Burdge and Vanclay, 1995:59) through their active participation in the digital world. In addition, when engaging with digital media tools, young people may contribute towards the formation of 'social impact’ - when conceived as “all social and cultural consequences to human populations of any public or private actions that alter the ways in which people live, work, play and relate to another, organise and meet their needs, and generally cope as members of society” (Burdge and Vanclay, 1995:59). For example, they can influence “health and growth of civic collective, jointly produced stories, and real world social change” (Ito et al., 2013:48). Vital youth contributions to the public debates on global warming, equal rights, and poverty have been delivered by young digital storytellers, artists, and activists (Adobe Youth Voices, 2017; UNCTAD, 2017). In addition, the digital world furnishes environments in which young people can enjoy autonomy to learn and network (Ito et al., 2013). Finally, it has been argued that the enhancement of young people's understanding of the concept of ‘self’, and societal interactions, can result from their digital participation (Buckingham, 2008; Robards and Bennett, 2014).

However, scholars have equally emphasised the risks and dangers associated with digital youth participation (Aiken, 2017; Buckingham, 2008; Herring, 2008). For example, Buckingham (2008) has warned that it is vital not to ‘romanticize’ the emancipating qualities of the digital world. It has been argued that the cyber world provides young people with an “illusionary freedom and autonomy” (Herring, 2008:73), where adults manage and capitalize on young people’s digital participation. Elsewhere, issues such as online privacy, peer-pressure, and self-representation have been examined (Aiken, 2016). Aiken argues that cyber self-obsession and associated, constant “updating, making friends, making connections, gaining followers, getting likes, and being tagged” (2016:174), can lead to identity confusion among teenagers. A recent report published by the National Society for the Prevention of Cruelty to Children (Bentley, O’Hagan, Raff and Bhatti, 2016), notes that counselling support related to young people’s online activity has increased, with cyber bullying related support increasing by 13 percent between 2014-2016, and a 15 percent increase related to ‘sexting’ in from 2014 to 2016 (Bentley et al., 2016:41).

While the value of digital media to young people has been increasingly debated in the literature, scholars have equally argued that the methods used to evaluate youth participation are primarily technocratic (Checkoway and Richard-Schuster, 2008). They have also called for moving beyond “observation, measuring, testing and enumerating” of young people by external evaluators (Checkoway and Richard-Schuster, 2008:24), to understand a more meaningful and inclusive evaluation process. Below is an analysis of literature on social impact evaluation, including scholarly debate on both technocratic and participatory approaches to its assessment (Adams and Garbutt, 2008; Akpofure and Ojile, 2003; Becker et al. 2003; Belfiore and Bennett, 2007; Burdge, 2003; Cousin and Whitmore, 1998; Douthwaite et al., 2007; Dufour, 2015; Esteves et al., 2012; Gawler, 2005; Lockie, 2001; Morris et al., 2011; Rietbergen-McCracken and Narayan, 1998; Vanclay, 2003).

Social Impact Analysis and Evaluation: from technocratic to participatory

A considerable amount of literature has been published on the importance of Social Impact Assessment (SIA) and evaluation concerning adult and youth groups (for example Adams and Garbutt, 2008; Akpofure and Ojile, 2003; Becker et al. 2003; Belfiore and Bennett, 2007; Burdge, 2003; Cousin and Whitmore, 1998; Douthwaite et al., 2007; Dufour, 2015; Esteves et al., 2012; Gawler, 2005; Lockie, 2001; Morris et al., 2011; Rietbergen-McCracken and Narayan, 1998; Vanclay, 2003).The field of Social Impact Assessment originated in the 1950s and was primarily incorporated into the standard guidelines for Environmental Impact Assessment in the United States (Esteves et al., 2012; Pant, 2015). In 1969, the National Environmental Policy Act embedded SIA as a legal requirement into their project implementation processes (Esteves et al., 2012). Consequently, over the years SIA became a core element of community development initiatives and was adopted by many international organisations (Adams and Garbutt, 2008; Chambers, 1994; Douthwaite et al., 2007; Gawler, 2005).

However, as SIA frameworks gained more popularity, practitioners began recognising some of the methodological issues affecting the practice (Adam and Garbutt, 2008; Esteves et al. 2012; Lockie, 2001; Pant, 2015; Vanclay, 2003). Firstly, SIA techniques were critiqued as being mainly technocratic and solely serving organisations in meeting their funding criteria and managements’ expectations (Adams and Garbutt, 2008). For instance, Lockie argued that technocratic evaluation methods are mainly about “measuring, predicting and reporting” of the impact (2001:278). In addition, attempts to foresee the outcomes of an intervention not only impose “unstated goals and values”, but also “pre-empt the outcomes of debates and decision making processes” (Lockie, 2001: 281). Secondly, scholars claim that SIA places too much emphasis upon setting specific social impact goals and objectives, instead of trying to understand the dynamic of the social change as a collective and individual process (Adams and Garbutt 2008, Becker et al. 2003; Belfiore and Bennett, 2007; Burdge, 2003; Esteves et al., 2012). Belfiore and Bennett claim that “considerably more time and resources have been spent on looking for ‘proof’ of impacts than actually trying to understand them” (2007:137). Another problem with SIA is that since it is usually considered as the final, and often the least well-invested stage of project development, it is used to “only just meet the minimal standards” (Esteves et al., 2012).

Since the 1970s, as a response to what had come to be regarded as a problematic, technocratic methodology, SIA professionals and theorists began to search for a more inclusive and holistic approaches to monitoring and evaluating social change (Adam and Garbutt 2008; Akpofure and Ojile 2003; Becker et al. 2003; Burdge, 2003; Douthwaite et al., 2007; Esteves et al. 2012). It was agreed that to fully comprehend the complexity of social impact, it was desirable to move beyond “narrowly conceived ideas of performance measurement and target setting” (Belfiore and Bennett 2007:138). SIA professionals collectively opposed to the implementation of technocratic approaches in the evaluation process called for “a more adequately ‘socialised’ impact assessment” (Douthwaite 2007:279). As a result, the SIA methodology became more concerned with the evaluation process itself, not just the resulting outcomes.

When defining good SIA practice, Esteves et al., (2012) emphasise the active role of participants in the process. The aim of an effective SIA is to provide stakeholders a safe environment in which their needs and aspirations can be analysed and understood (Esteves et al., 2012). This shift towards a more community-centred approach introduced new core attitudes in the SIA community (Vanclay, 2003). Consequently, SIA was perceived not solely as a tool used to assess goals and objectives, but as a “process of managing the social issues associated with planned interventions” (Vanclay, 2006). The emphasis on the process was further reflected in the development of more participatory evaluation methodologies. Numerous commentators agree that active community collaboration in social impact assessment provides a more critical and informed view of the process (Adams and Garbutt, 2008; Becker et al., 2003; Cousins and Whitmore, 1998; Douthwaite et al., 2007; Fetterman and Wandersman, 2005; Innovation Centre for Community and Youth Development, 2005; Morris et al., 2011; Rietbergen-McCracken and Deepa Narayan, 1998; Pant, 2015).

Likewise, in the fields of both Social Impact Assessment and Youth Participation, practitioners have recognised a participatory approach as a more appropriate methodology to assess impacts of youth centred initiatives (Checkoway and Richard-Schuster, 2003; Gawler, 2005; Sabo, 2003; Innovation Centre for Community and Youth Development, 2005; Walker 2007). Checkoway and Richard-Schuster claim that “youth participation in evaluation community research is desirable”, and there is a need for more knowledge of this inclusive approach to impact assessment (2003:22). Consequently, those who research issues related to young people called for an alternative evaluation approach, which effectively fosters social equity and validates youth expertise in the process (Checkoway and Richard-Schuster, 2003; Sabo, 2003; Walker, 2007). Nevertheless, despite the growing popularity of Participatory Evaluation as an inclusive SIA model there were some arguments that young people were rarely involved in the process (Flores, 2008). While in recent years an increasing number of youth participatory evaluation projects can be noted (for example Samuelson et al. 2013; Duke et al., 2016), there are is limited knowledge of how this particular SIA model could be used in digital youth context.

Measuring social impact with young digital participants: current social impact evaluation methods and their limitations

Despite the extensive scholarly analysis on participatory evaluation, researchers keen to explore the social impact of technologies on young people have mainly adopted functional, but traditional, research approaches. Thus, the social significance of youth digital participation is primarily measured with the use of tools such as surveys and interviews (Quinlan 2015; Stevens, Gilliard-Matthews, Dunaev, Woods and Brawner, 2016), case studies (Hyder, 2017), focus groups (Ito et al., 2008) and/or ethnographic observations (Livingstone and Sefton-Green, 2016). While these evaluation processes and their outcomes provide vital data on the relationship between youth and technologies, they also have clear limitations, most notably in respect to the power dynamics within the study and participation of data subjects, measurement metrics, and scalability.

Since digital technologies have become vital elements of young people’s everyday lives, youth development practitioners (Wilson, 2017; #NotWithoutMe, 2017) and researchers (Buckingham, 2008; Erstad, 2012; Livingstone, 2012) have struggled to find ways to holistically examine and measure the social impact of young people’s digital participation. Several commentators (for example Mackril and Ebsen,2017) noted that there are currently no evaluation methodologies or approaches which specifically examine the social impact of youth digital participation .

Livingstone et al. have argued that it is yet unknown if “online opportunities may (or may not) result in tangible benefits” (2015:14) to younger generations. Elsewhere, in the context of implementation of digital elements into youth social work, Mackril and Ebsen have stated “there is still limited research on how to assess the impact of digital technologies” on youth work (2017:1). Additionally, Ito et al. have highlighted “a lack of literature that discusses and evaluates the impact of youth-led social change” (Ito et al., 2015).

Young people have been increasingly collaborating in digital participatory settings (Fitton et al., 2016). Due to their unique and often effortlessly gained digital expertise, the generations of “digital natives” (Prensky, 2009) have become active actors in many digital co-design and co-production of products (Dell and Kumar, 2014; Buccieri and Molleson, 2015) as well as digital policies (5Rights, 2017). Unfortunately, most of these works “do not explore the impact the [collaborative] process has on its participants, [but] rather focus on the process itself” (Guha et al., 2010:199). As the area of youth digital participation has become extensively researched, the information concerning the measurement of its social impact is still limited. Guha et al. has supported this argument by claiming:

“[There is] a wealth of information about children’s technology and the design process to create it, there is a dearth of information regarding how the children who participate in these design processes may be affected by their participation.” (2010:198)

Likewise, practitioners within youth organisations have acknowledged the possible transformative power of digital technologies. This is evident in a number of implementations located in the United Kingdom (Young Scot, 2017; Time to Shine Digital, 2015; STEP, 2016). However, as the use of digital technologies becomes increasingly common, practitioners also struggle to capture and analyse the social impact of such mediated initiatives (Buccieri and Molleson, 2015; Wilson, 2017). For instance, a recent British Carnegie Trust’s digital youth inclusion project outlined social impact evaluation as having key challenges: “Let’s acknowledge that measuring the impact in learning digital skills is tough!!” (#NotWithoutMe, 2017). Here, digital youth inclusion practitioners have declared that frameworks focusing solely on the analysis of digital skills (Just Economics, 2015) do not provide a holistic representation of the social change that occurs during the project. Consequently, youth development practitioners agree that new tools or approaches need to be developed to measure the social impact of youth digital participation (#NotWithoutMe, 2017).

A progressive understanding of the social impact of the interactions between young people and digital technologies is now advocated by researchers and practitioners alike (Araya and McGowan, 2016; 2017, Livingstone and Sefton-Green, 2016). This also applies to the means of measuring social impact, regarded as a complex and under-developed area that merits further research (Ito et al., 2013; Livingstone, Mascheroni and Staksrud, 2015).

Youth participatory evaluation’s key areas for consideration: the adoption of alternative, participant-centred approaches to digital youth projects evaluation

Acknowledging that there is “no single tool or method that can capture the whole range of impacts or that can be applied by all” (Dufour, 2015:5), identifies key areas of consideration for effective evaluation processes are identified here. The following points derive from the literature on youth participation, digital youth and social impact evaluation, in both adult and youth settings. This cross disciplinary analysis allows for the identification of re-occurring themes in the debates examining the value of participatory experiences, in both digital and traditional forms. These five areas for consideration in youth participatory evaluation are Participation, Play, Learning, Knowledge Co-creation, and Power Dynamics (Figure 2).

Participation

One of the most significant changes in SIA has been implementing participatory and inclusive monitoring and evaluation methods into practice. Lockie highlights the importance of ‘shared understanding of problems and collective efforts to solve them’ (Pant, 2015:109). It is vital that the SIA process goes beyond a tokenistic ‘public relations exercise’ (Lockie, 2001:278). The International Principles for Social Impact Assessment, created by the International Association of Impact Assessment, identify participation as a key element of effective evaluation framework. One of the core values the SIA community advocates is that “people have a right to be involved in the decision making about the planned interventions that will affect their lives” (Vanclay, 2004:9). Additionally, Akpofure, and Ojile (2003) claim that by adapting participatory and interactive methodology in social impact assessment, projects can improve their social-economic results (p.212).

The shift towards a more inclusive methodology is also noted in the areas of youth participation and social impact evaluation (Checkoway and Richard-Schuster, 2003; Gawler, 2005; Holden, et al., 2004; Sabo, 2003; Flores, 2008; Walker, 2007). To more effectively address the needs of youth, scholars call for “a radical move to flatten hierarchies” and development of a more participatory evaluation system (Flores 2008:13). Collaborative methodologies allow youth to define and examine their own projects and create their own methods to measure their development (Checkoway and Richard-Schuster, 2003). It has been argued that only through active participation in the social impact assessment processes are young people able to critically analyse and reflect upon their experience and its social impact. As Jennings et al. suggest, youth participation is not just concerned with “adults allowing children to share their perspective” (2006:23), but nurturing an environment where young people can actively and independently implement social change. To better grasp the holistic value of youth collaborative projects, researchers need to move beyond the autocratic perception of young people as “human potential, moulded and shaped by positive and negative influences” (Percy-Smith & Thomas, 2010: XXI).

Knowledge Co-creation

One of the key criticism of traditional SIA is that its top-down methods “have largely failed in the exercise of social explanations and prediction” (Lockie 2001:281). Technocratic methods implemented by external evaluators might fail to consider the unique knowledge of the participants of the evaluated initiatives. To address this issue, The International Principles for Social Impact Assessment outline the importance of local knowledge in their SIA Core Values (Esteves et al., 2012). The International Association of Impact Assessment suggests that a community’s expertise is a vital element of an evaluation process, and can positively affect a project’s design, implementation, and evaluation (Vanclay, 2003). Inclusive and participatory methodologies consequently influence “a common and shared understanding of problems and collective efforts to solve them” (Pant, 2015:109). Becker et al. suggest that “not only [do] group members identify more diverse ideas, but also their identification of issues reflect a wider range of perspectives and greater cognitive processing” (2003:373). Consequently, due to this unique expertise and point of view, community members are defined as the evaluation experts (Innovation Centre for Community and Youth Development, 2005).

To gain a better understanding of the social impact of youth participatory projects, it is essential to use young people’s skills, attitudes, and knowledge (Holden et al. 2004:615). Checkoway and Richard-Schuster highlight that youth are often “observed, measured, tested and enumerated” by external evaluators (2008:24). These methods position young people as passive social impact evaluation actors, deprived from a real opportunity to analyse and/or engage with their experiences. Although these traditional approaches frequently provide relevant metrics and insights into the knowledge of youth participation practice, it is suggested that only meaningful participation can tap into young people’s unique expertise and encourage them to “develop knowledge for their own social action and community change” (Checkoway and Richard-Schuster, 2003:22). It is therefore vital to acknowledge that young people possess vital and unique perspectives when evaluating the initiatives that serve them (Checkoway and Richard-Schuster, 2003).

Power Dynamics

The problematic notion of power in the context of social impact assessment ought to be analysed in two ways. Firstly, the control imposed by the governing and funding bodies can have a significant impact on the quality of SIA. As previously discussed, SIA was primarily implemented to meet projects’ funding criteria and evidence-based policy-making demands. Among many of the issues affecting the quality of the evaluation process are: conflicting interests, funding criteria, power inequities, and experts’ subjectivity (Adams and Garbutt, 2008; Lockie, 2001; Pant, 2015). Belfiore and Bennett (2007) critically examine the conventionally used and top-down evaluation approaches, describing them as “the cult of measurable” (p.137). However, such quantitative, economic, and statistical tools are unable to capture the full depth of social impact. It is therefore essential to “move beyond narrowly conceive ideas of performance measurement and target setting” (2007, p.138). Lockie (2001) has questioned the value of externally imposed understandings of impact. He has stated that technocratic rationality is often favoured by SIA practitioners, who dismisses the view of “an ill-informed public” as “subjective, emotional and irrelevant” (2001, p.279). Certainly, the externally enforced protocols used to predict outcomes of an intervention can have a negative impact on the progress and evaluation of youth as well as adult initiatives.

Secondly, the power of the evaluation expert needs to be acknowledged. Scholars agree that the distance between researcher and the research needs to be addressed (Cousins and Whitmore, 1998). Recognising participants as active co-creators of the social impact assessment results in “relocating power in the production of knowledge” (Cousins and Whitmore, 1998:5). The notion of power dynamic should be considered in particular when working with young project participants (Checkoway and Richard-Schuster, 2003; Walker, 2007). Here, there is a risk that social impact evaluation outcomes might be censored when interpreted via adult lenses. For example, Checkoway and Richard-Schuster have argued that technocratic evaluation methods tend to emphasise “troubled youths and casts them as human subjects” (2003:24). Therefore, it has been declared that by fostering social equality during the evaluation process, projects can enhance the validity of their evaluation data. Most importantly, however, meaningful participatory youth evaluation “strengthens their ownership of the evaluation results” (Gawler, 2005:1)

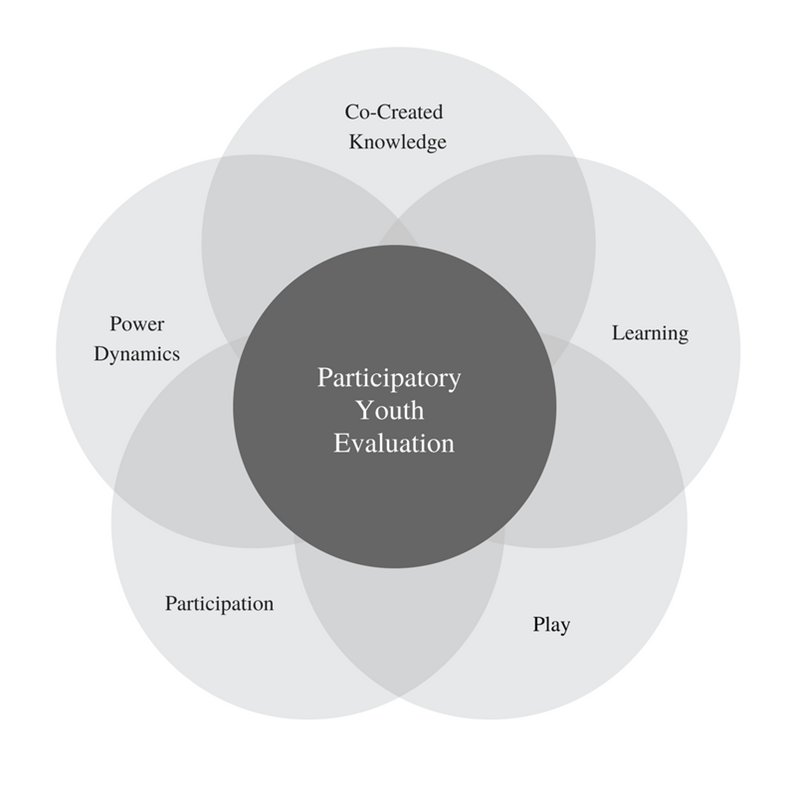
Learning

Traditional SIA approaches aim to effectively collect data and disseminate them with the interested parties. Consequently, this process of technocratic information extraction often excludes the researched community from the evaluation process. Conversely, the inclusive and participatory methods of SIA aim to nourish learning and critical reflection (Pant, 2015). Community participation in SIA is therefore essential in order to identify reliable social impacts (Burdge, 2003). The use of local expertise is thus defined as a key element of balancing the “technocratic bias with critical social learning” (Burdge, 2003:226). The importance of learning has been defined as one of key ethical considerations while evaluating with young people: “if the information gathering will not directly benefit the children and adolescent involved or their community the evaluation process should not proceed” (Gawler, 2005:3)

Play

Youth evaluation studies encourage the use of a range of creative methods (Gawler, 2005; Innovation Centre for Community and Youth Development, 2005; McCabe and Horsley, 2008; Sabo, 2003; Flores, 2008; Feinstein & O’Kane, 2008). The traditional methods of evaluation (such as questionnaires, surveys, and focus groups) often expect participants to have basic literacy or numeracy skills (McCabe and Horsley, 2008). However, McCabe and Horsley suggest that many individuals prefer to express themselves in alternative ways, such as storytelling, painting, photography, and other media (2008:1). Play and creative methods can indeed encourage both adults and youth to become curious evaluators. Sabo claims that play helps to “level the playing field so that staff and youth can begin to see evaluation as something everyone can do” (2008:25). Sabo (2003) has also outlined the importance of role play in collective evaluation process. In the process of projecting possible project outcomes, young people get an opportunity to “break out of their socially fixed identities” (Sabo, 2003:17). Additionally, during the participatory evaluation process, young people enter the “Zone of Proximal Development” (Vygotsky, 1978), where they equally improvise and become the experts of their experiences. Consequently, participatory youth environments should aim to encourage youth to play with their identities instead of being defined by them (Sabo, 2003:22).

Likewise, in the context of youth digital participation, scholars claim that “game-like learning” enhances youth’s participatory experience (Ito et al., 2013). Play and experimentation have been therefore defined as key elements of digital learning (Buckingham, 2008). It has been argued that the element of digital play not only enriches the form of group inquiry but can function as an empowerment tool. (Black et al., 2015:4). Playful evaluation methods aim to temporarily re-balance adult-youth power dynamics and allow for a more equal distribution of control over data gathering and interpretation. The literature review of practical resources for youth evaluation reveals the richness of creative and playful social impact evaluation tools (McCabe and Horsley, 2008; Sabo, 2003; Flores, 2008; Feinstein and O’Kane, 2008). Ranging from video to illustration, participatory youth evaluation covers a wide range of artistic and playful tools. The implementation of play into participatory youth enriches the experience and turns it into “an experience which is enjoyable by all those participating in the process, rather than being something alien and imposed” (McCabe and Horsley, 2008:1).



**Figure 2. Youth Participatory Evaluation: five areas for consideration in youth participatory evaluation (participation, knowledge co-creation, power dynamics, learning, and play) are identified in the reviewed literature.**

Moving forward: youth participation in evaluation and adaptation of holistic and participant-cantered evaluations

Through an extensive literature review in the areas of youth participation, digital youth participation, social impact assessment, and social impact evaluation, two areas for consideration when evaluating digital youth participation are identified and discussed in this section: 1) the contribution from, and benefits of including, young people in evaluation and 2) moving towards a holistic, participant-centred approach to evaluation. These recommendations are synthesised from the analysis of scholarly debates and industry documentation examining the value of youth digital participation.

1. Youth Participation in Evaluation

First, in the context of youth participation, scholars in digital (Ito et al., Koh, 2013), traditional (Checkoway and Gutiérrez, 2006; Checkoway and Richards-Schuster, 2003), and youth social impact evaluations (Checkoway and Richard-Schuster, 2003; Gawler, 2005; Sabo, 2003), claim that young participants’ meaningful involvement should be at the centre of any youth development initiative. Through active participation in the digital world, adolescents can exercise their voice, mobilise, and organise (Ito et al., 2013). Defined as “potential innovators and drivers on new media change” (Buckingham, 2008) with a unique technological expertise, young digital citizens of the 21st century co-create and co-design services and policies that aim to serve them (5Rights, 2017; Children in Scotland, 2017). Thus, the recognition of young peoples’ technological skills, knowledge, and attitudes is vital when analysing the impact of digital youth participation. Likewise, in the context of social impact evaluation, scholars have recognised the importance of considering young people as equal partners and co-creators of knowledge (Checkoway and Richard-Schuster, 2008). To gain a better understanding of the social impact of youth participatory projects, researchers insist that it is essential to use young people's skills, attitudes, and knowledge (Holden et al. 2004:615). Particularly in the context of the digital era, it is crucial to move beyond the autocratic perception of young people as “human potential, moulded and shaped by positive and negative influences” (Percy-Smith and Thomas, 2010:XXI).

“When young people define their own problems rather than discuss the one given by adult authorities, when they design their own age-appropriate methods rather than uncritically accept adults ones’ and the develop knowledge for their own social action and community change rather than ‘knowledge for its own sake’ – when they work in these ways, as Wang and Burris (1997) contend, it can raise their consciousness and their spirit and move them to action.” (Checkoway and Richard-Schuster, 2003:22)

Thus, here it is advocated that the conscious recognition of young people as the experts of their own participatory digital experience could aid the current evaluation processes. Moreover, it is argued here that to more effectively address the needs and concerns of “digital youth”, it is vital “to flatten hierarchies” and introduce more collaborative and inclusive evaluation system (Flores 2008:13). Although youth participatory evaluation cannot fully substitute scientific and industry evaluation standards, young digital citizens could certainly provide evaluation experts with additional, important, unique, and age-appropriate perspectives. This view has been supported by digital youth practitioners, who, during a discussion on social impact of digital youth inclusion projects, posed the following question: “How do you measure young people’s (digital) skills, if you don’t know yourself what the skills should be (as an older person!)?” (#NotWithoutME, 2017).

2. Holistic and Participant-Cantered Evaluations

Here it is advocated that the development of more holistic and participant-centred approaches to social impact evaluation of youth digital participation. In order to enhance the current understanding of the impact of digital youth participation, it is vital to search for more experiential and experimental reflection and feedback mechanisms. Since the top-down methods “have largely failed in the exercise of social explanations and prediction” (Lockie 2001:281), it is argued that digital youth projects implementing traditional evaluation approaches (such as surveys, interviews, focus groups or case studies) could benefit from adding participatory and reflective exercises into their work (Galwer, 2005; McCabe and Horsley, 2008; Flores, 2007). Not only does youth participatory evaluation exercise produce more subjective and engaged feedback, but it also protects participants from becoming passive subjects of top-down “information extracting” procedures (Gawler, 2005). It is therefore important to acknowledge that the effective value measurement should no longer be discussed solely in terms of “success or failure model” nor “asking did a project ‘get participation right’ or meet programme targets” but thinking about the reflective learning journey of the process (Thomas and Percy-Smith, 2010:32).

Therefore, it is proposed an evolution into more holistic and participant-centred evaluations. Social impact evaluation processes should be discussed in the context of a continual and parallel process, where participants are provided with opportunities to contribute to the development of: 1) project aims and objectives, 2) evaluation parameters, 3) measurement tools, and 4) outcomes presentation and dissemination (Pant, 2015). Pant has also suggested that “evaluation is an integral, yet often overlooked component of planning for social action” (2015:106). Therefore, this paper proposes that instead of measuring the impact at a project’s final stages, youth-driven evaluation methods should be considered as an ongoing reflective process. Young digital participants should be provided with opportunities to reflect on their impact expectations at the beginning of the project and examine their progress periodically as the project evolves. Additionally, the final results should be “communicated in different ways, responding to end users’ needs” (Pant, 2015:109). Through a more holistic approach, the evaluation data can become truly relevant - not only to the project staff but to the young participants themselves. Most importantly, considering the complex and multi-layered nature of digital youth participatory projects, holistic methods might provide more insightful perspectives and analysis, and in result empower young people to re-claim their voices in the discourses around the value of digital youth participation.

Conclusion: young participants as co-evaluators

The literature review presented here reveals that the emergence of digital youth participation has produced new challenges both for academics and youth development practitioners. It can be assumed that “as technological innovations continue to develop, social practices among youth creatively adjust around them” (Livingstone 2015, p.9) and therefore, it will be increasingly challenging for the researcher community not only to keep up to date with the technologies teenagers use (Subrahmanyam & Smahel, 2011, p.19), but to examine and understand the impact of these revolutionary cultural changes. Indeed, scholars (Buccieri & Molleson, 2015; Livingstone, Mascheroni & Staksrud, 2015; Mackril & Ebsen, 2015) and youth development practitioners (Wilson, 2017; #NotWithoutMe, 2017) have agreed that to examine and improve the use of social impact evaluation in digital youth participation alternatives, youth-centred practical solutions are required. Likewise, they agree that the extent to which digital technologies support youth development also requires further research (Buccieri & Molleson, 2015; Livingstone, Mascheroni, & Staksrud, 2015).

Set against an examination of digital participatory youth initiatives and the “traditional” approaches undertaken to analyse and capture their impact; this paper argues the need for alternative approaches in impact evaluation. Acknowledging that there is “no single tool or method that can capture the whole range of impacts or that can be applied by all” (Dufour, 2015, p. 5), two areas of consideration when evaluating digital youth projects have been identified: firstly, that current understanding of the value of youth digital participation could be enhanced with the implementation of youth participatory techniques; and secondly, that impact measurement processes should be holistic and user-centred.

References

Adobe Youth Voices (2017) Nine years of Adobe Youth Voices.

Available at: <http://www.adobe.com/uk/corporate-responsibility/education/adobe-youth-voices.html> (accessed 10 September 2017).

Aiken M (2017) *The Cyber Effect: A Pioneering Cyberpsychologist Explains how Human Behavior Changes Online*. Spiegel & Grau.

Araya D and McGovan H (2016). Education and accelerated change: The imperative for design learning. In: Brookings.edu. Avaiable at: <https://www.brookings.edu/blog/brown-center-chalkboard/2016/09/14/education-and-accelerated-change-the-imperative-for-design-learning/> (accessed 10 September 2017)

Bennett A and Robards  B (2014) Introduction: Youth, cultural practice and media technologies. In: *Mediated youth cultures*. Palgrave Macmillan UK, pp. 1-7.

Black J, Castro J and Lin C (2015) *Youth practices in digital arts and new media: Learning in formal and informal settings*. Springer.

Boyd D (2014) *It’s complicated: The social lives of networked teens*. Yale University Press.

Buccieri K and Molleson G (2015) Empowering Homeless Youth: Building Capacity through the Development of Mobile Technology. *Journal of Community Practice*, *23*(2), pp.238-254.

Buckingham D (2008) *Youth, identity, and digital media* (pp. 119-142). Cambridge, MA: MIT Press.

Burdge RJ and Vanclay F (1995) Social impact assessment. *Environmental and social impact assessment*, pp.31-65.

Checkoway  BN and Gutierrez LM (2006)  Youth participation and community change: An introduction. *Journal of Community Practice*, *14*(1-2), pp.1-9.

Children in Scotland (2017) Year of Young People 2018. Available at: <http://www.childreninscotland.org.uk/project/year-of-young-people-2018> (acessed 10 Septemebr 2017).

Checkoway B and Richards-Schuster K (2005) Participatory evaluation with young people. *Ann Arbor, MI: University of Michigan, Program for Youth and Community, School of Social Work*.

Cohlmeyer D (2014) Developing a Technology Philosophy for Digital Youth Work. *Concept*, *5*(1), p.7.

Dell N & Kumar N (2016) The ins and outs of HCI for development. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems,* pp. 2220-2232.

Dufour B (2015) State of the art in social impact measurement: methods for work integration social enterprises measuring their impact in a public context. In *5th EMES International Research Conference on Social Enterprise:" Building a scientific field to foster the social enterprise eco-system"*.

Duke AM, Sollie DL and Silva K (2016) Using Youth Participatory Evaluation to Improve a Bullying Prevention Program. *Journal of Extension*, *54*(4):4.

Egbo R (2012) Technologies of governance: an examination of youth participation in development discourses. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, *33*(1), pp.77-89.

Erstad  O (2012) The learning lives of digital youth—beyond the formal and informal. *Oxford Review of Education*, *38*(1), pp.25-43.

Evaluate IT (2015)  Just Economics*,* pp.4-52. Available at: <https://goon-local-prod.s3-eu-west-1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf> (accessed 1 September 2017).

Fitton D, Bell BT, Little L,  Horton M, Read JC, Rouse M and Toth N (2016) Working with Teenagers in HCI Research: A Reflection on Techniques Used in the Taking on the Teenagers Project. In *Perspectives on HCI Research with Teenagers* (pp. 237-267). Springer International Publishing.

Flores KS (2007) *Youth participatory evaluation: Strategies for engaging young people* (Vol. 14). John Wiley & Sons.

Gawler M (2005) Useful tools for engaging young people in participatory evaluation. *CEE/CIS Regional Office: UNICEF*.

Guha ML, Druin A  and Fails JA (2010)  Investigating the impact of design processes on children. In *Proceedings of the 9th International Conference on Interaction Design and Children* (pp. 198-201). ACM.

Goldman S, Booker A and McDermott M (2008) Mixing the digital, social, and cultural: Learning, identity, and agency in youth participation. *Youth, identity, and digital media*, *216*.

Hart R (1992) Innocenti Essays no 4: Children’s Participation. From Tokenism to Citizenship’. *Available online at www. unicef-irc. org/publications/100*.

Hea  BW (2011) Why not ask them? Mapping and promoting youth participation. *Children and Youth Services Review*, *33*(4), pp.541-547.

Herring SC (2008) Questioning the generational divide: Technological exoticism and adult constructions of online youth identity. *Youth, identity, and digital media*, pp.71-94.

Hyder N (2017) Evaluation of TTS.Digital. Rep. Research Scotland.

Ito M, Horst HA, Bittanti M, Stephenson BH, Lange PG , Pascoe CJ, Robinson L, Baumer S, Cody R, Mahendran D  and Martínez KZ (2009) *Living and learning with new media: Summary of findings from the Digital Youth Project*. MIT Press.

Innovation Centre for Community and Youth Development (2005) Reflect and Improve. A Tool Kit for Engaging Youth and Adults as Partners in Program Evaluation*.* Available at: <http://www.theinnovationcenter.org/files/Reflect-and-Improve_Toolkit.pdf> (accessed 30 August 2017).

Just Economics (2015) Evaluate IT. A step-by-step guide to demonstrating social impact of digital inclusion projects. Available at: <https://goon-local-prod.s3-eu-west-1.amazonaws.com/uploads/EvaluateIT_15.02.16.pdf> (accessed 25 August 2017).

Koh K (2013) Adolescents' information‐creating behavior embedded in digital Media practice using scratch. *Journal of the Association for Information Science and Technology*, *64*(9), pp.1826-1841.

Kriauciunas N (2016) Developing Digital Youth work. Retrieved from <https://www.salto-youth.net/tools/toy/reference/developing-digital-youth-work.5292/> (accesssed 20 August 2017).

Lemke J, Lecusay R, Cole M and Michalchik V (2015) Documenting and assessing learning in informal and media-rich environments. MIT Press.

Livingstone S (2010) Digital learning and participation among youth: critical reflections on future research priorities. *International journal of learning and media*, 2 (2-3): 1-13.

Livingstone S (2012) Critical reflections on the benefits of ICT in education. *Oxford review of education* *38*(1): 9-24.

Livingstone S, Mascheroni G and Staksrud E (2015) Developing a framework for researching children's online risks and opportunities in Europe.

Livingstone S and Sefton-Green J (2016) *The class: Living and learning in the digital age*. NYU Press.

Loncle P, Jackson G and  Muniglia V  (2012) Youth participation in Europe: Beyond discourses, practices and realities. *Policy Press Scholarship Online Youth* 15(1): 205–214.

#NotWithoutMe (2017) Supporting Digital Inclusion for All Young People. Available at: <https://padlet.com/CUKT/notwithoutmeactivenotes> (accessed 1 September 2017)

Mackrill T and Ebsen F (2017) Key misconceptions when assessing digital technology for municipal youth social work. *European Journal of Social Work*, pp.1-12.

McMillan AS and Simkiss D (2009) The United Nations convention on the rights of the child and HIV/AIDS. *Oxford University Press*.

Mihailidis P (2015) Digital curation and digital literacy: evaluating the role of curation in developing critical literacies for participation in digital culture. *E-Learning and Digital Media* *12*(5–6): 443–458.

Percy-Smith B and Thomas N (2009) A *handbook of children and young people's participation: Perspectives from theory and practice*. Routledge.

Print M (2007) Citizenship education and youth participation in democracy. British Journal of Educational Studies 55(3): 325–345.

Quinlan O (2015) Young Digital Makers. Report, London: Nesta.

Richards-Schuster  K and Pritzker S (2015) Strengthening youth participation in civic engagement: Applying the Convention on the Rights of the Child to social work practice. *Children and Youth Services Review* 57: 90–97.

Rietbergen-McCracken J and Narayan-Parker D (1998) Participation and social assessment: tools and techniques. *World Bank Publications.*

Sabo K (2003)  A Vygotskian perspective on youth participatory evaluation. *New directions for evaluation*, *2003*(98): 13-24.

STEP (2016) Scottish Travellers Education Programme. Available at: [www.step.education.ed.ac.uk](http://www.step.education.ed.ac.uk) (accessed 20 August 2017).

Stevens R, Gilliard-Matthews S, Dunaev J, Woods MK and Brawner BM (2016). The digital hood: Social media use among youth in disadvantaged neighborhoods. *new media & society*: 1-18.

Stornaiuolo A and Thomas EE (2017) Disrupting Educational Inequalities Through Youth Digital Activism. *Review of Research in Education* 41(1): 337–357.

Subrahmanyam K and Šmahel D (2011) Constructing identity online: Identity exploration and self-presentation. *Digital youth*, pp. 59–80.

Subrahmanyam K & Smahel D (2010). Digital youth: *The role of media in development*. Springer Science & Business Media.

Suleiman AB, Soleimanpour S and London J (2006) Youth action for health through youth-led research. *Journal of Community Practice* 14(1-2):125-145.

Tanner S (2012) *Measuring the Impact of Digital Resources: The Balanced Value Impact Model*. Department of Digital Humanities, King's College London.

Vygotsky LS (1978) The role of play in development. *Mind in society*, pp. 92-104.

Walker K (2007) Youth empowerment evaluation: Learning voice. *American Journal of Evaluation* 28(3):  321-326.

Walther A (2012) Learning to Participate or Participating to Learn. *Youth Participation in Europe. Beyond Discourses, Practices and Realities*, pp.189-207.

Wilson G (2017) Digital Inclusion for All Young People? *Holyrood Magazine*. Dods Group Plc. Available at: <https://www.holyrood.com/articles/comment/digital-inclusion-all-young-people> (accessed 12 August 2017).

Wilson G and Grant A (2017) #NotWithoutMe: A digital world for all? Carnegie UK Trust. Available at: <https://www.carnegieuktrust.org.uk/carnegieuktrust/wp-content/uploads/sites/64/2017/10/NotWithoutMe-2.pdf> (accessed 12 September 2017).

UNCTAD (2017) UNCTAD Youth Network. Available at: <http://unctad.org/en/Pages/Youth-Network.aspx> (accessed 30 August 2017).

Young Scot  (2017) Young Scot Digital Academy. Available at: <http://www.youngscot.net/what-we-do/digital-academy> (accessed 30 August 2017).

Youth Link Scotland (2017) YouthLink Scotland | The national agency for youth work. Available at: <https://www.youthlinkscotland.org/> (accessed 30 August 2017).

Zimmerman MA, Stewart SE, Morrel-Samuels S, Franzen S and  Reischl T M (2011)  Youth empowerment solutions for peaceful communities: Combining theory and practice in a community-level violence prevention curriculum.*Health promotion practice* 12(3): 425-439.

5Rights (2016) 5 Rights Framework. Available at <http://5rightsframework.com/> (accessed 20 August 2017).