

How India Can Support Teenage Girls' Mental Well-being via Inclusion of Park Planning through Digital Engagement. Learning from Scotland's Mistakes

Holly Gray

Independent researcher, United Kingdom

hollygray@gmail.com

Abstract

This paper examines how teenage girls' use of digital governance in planning parks can support mental well-being in India by drawing on existing sources and lessons learned from Scotland's approach. United Nations Sustainable Development Goal 11.7 calls for inclusive public spaces worldwide. However, both Scotland and India provide opportunities for mediocre engagement of teenage girls, allowing a lack of inclusivity in parks, fostering smartphone dependence, social isolation, and the downfall of mental well-being (Hindustan Times, 2016; Make Space for Girls, 2023a). Park professionals within the United Kingdom appear oblivious to this issue: 89% believe parks cater to everyone, but only 22% of teenage girls agree (Baker et al., 2022). Meanwhile, Indian parks seem predominantly male-centric. Boys in India use parks to age ~20, but girls stop using them at ~12 (Hindustan Times, 2016).

Previous digital engagements by Scotland and the United Nations, such as Minecraft, feel male-oriented. Instead, India can empower girls' digital skills using other governance engagements like social media and games.

This paper aims to deepen the understanding of how inadequate park provisions have contributed to well-being issues among teenage girls in Scotland and how India could address similar challenges through a proposed digital strategy. The paper will first explore barriers to sufficient park planning within Scotland and India and how these barriers impact the mental well-being and future outcomes of teenage girls. A proposed digital strategy for India will be presented, which aims to implement more parks suitable for teenage girls through digital governance and engagement, drawing on lessons from Scotland's experiences.

Keywords: youth engagement, teenage girls, inclusive parks, digital governance, India

To cite this article:

Gray, H. (2024) "How India can Support Teenage Girls' Mental Wellbeing via Inclusion of Park Planning through Digital Engagement: Learning from Scotland's Mistakes", *The Journal of Public Space*, 9(2), pp. 129–146. doi: 10.32891/jps.v9i2.1791.

This article has been double blind peer reviewed and accepted for publication in *The Journal of Public Space*.



This work is licensed under a Creative Commons Attribution - Non Commercial 4.0 International License <https://creativecommons.org/licenses/by-nc/4.0/>

I. Introduction

Whilst the world's population of males and females is almost equal, worldwide public spaces are predominantly planned to accommodate the needs and experiences of boys and men (United Nations, 2021). For decades, this exclusion of females in urban planning has been the subject of critical research. McDowell (1983) highlighted this gender division, stating planning was not adequately responding to women's needs, emphasising a longstanding lack of female perspectives applied to the built environment. Efforts persisted, with early 21st century global initiatives like the United Nations Millennium Development Goal 3 to "Promote Gender Equality and Empower Women" (United Nations, 2010, p.22). In more recent years, the inclusion of females' perspectives in planning has gained visibility, with cities implementing governmental strategies to enhance women's experiences within public spaces. For example, Glasgow, Scotland, has become the United Kingdom's (UK) first feminist city in terms of urban planning, while Delhi, India, launched the Safe City Project to empower females in public spaces (Brown, 2022; Indian Government, 2023). Despite this, a skewed distribution of gender representation and usage within public spaces persists, reflecting discrimination within the planning of the built environment. This highlights an urgent need for more female-inclusive public spaces.

One space that women may feel most excluded from is parks. Ninety-five per cent of women in Glasgow, Scotland experience apprehension regarding their safety visiting parks at night (Arup, 2022). Similarly, in Delhi, India, parks stood out with significant differences in usage between genders, with women completely avoiding them after dark (Viswanath and Mehrotra, 2007). For younger girls, this apprehension around parks is not confined to nighttime, rather, it extends to all times of the day. Parks should provide a safe space that enables social, emotional, and physical well-being. As regarded by United Nations (2013a, p.2) defining public spaces, including parks as, "Spaces consisting of open environments (...) for everyone's enjoyment. (...) A key element of individual and social well-being". However, naivety around planning spaces for girls is allowing unequal opportunities for play within parks, resulting in a lack of socialisation and other effects. Despite this issue affecting girls of all ages, it incurs the most severe impacts on teenage girls.

A teenager is a person between the ages of 10-19 (United Nations, 2012); these years are an emotionally delicate time between childhood and adulthood, where insufficient outdoor park spaces to play in with friends can be detrimental to development (Wales et al., 2022). Everyone under the age of 18 has the right to engage in play, but it should be noted, during teenage years play transitions from games to socialising, with play becoming a complex and unstructured way to seek social connections (Hartas, 2020; UNICEF, 1990). Thus, teenage play can be seen as hanging out or chatting. Where these connections take place also matters. Today girls are choosing their smartphones, rather than in-person hangouts. According to Wales et al. (2022) and Hartas (2020) this is an issue, as for teenagers, the social and emotional development that socialising within the public realm offers cannot be matched through virtual communication. For girls, parks can provide a versatile and unconfined space to freely socialise, without parental observation. However, through lack of engagement in both Scotland and India, there is a lack of park spaces adequate for or utilised by teenage girls (Make Space for Girls, 2023a; Ro, 2019). This lack of inclusivity in parks is causing a lack of socialisation, which could be fuelling mental health declines, heralding detrimental effects to future generations of women.

This paper will establish how India can support teenage girls' mental well-being via inclusion of park planning through digital engagement by learning from Scotland's mistakes.

It will first analyse the barriers enabling inadequate planning and engagement of parks within Scotland and India. Then, the authors will investigate how these barriers are generating a decline in teenage girls' quality of well-being. We will draw on existing sources relating to qualitative and quantitative data derived from academic literature, governmental reports, articles, and trends in mental health and substance abuse. These sections will emphasise the interconnectedness of parks and girls' well-being. A proposed strategy to develop Indian digital governance and engagement will be explored for India to improve their provision of inclusive park planning.

2. Socio-economic context of Scotland and India

Before delving into the challenges teenage girls face in utilising parks, the socio-economic context of both countries must be explored. India and Scotland are significantly different across most sectors: demographically, politically, economically, and culturally. Yet Indian trends are rising akin to Scotland's in terms of poor socialisation in girls, lack of parks inclusive to girls, and declining mental health of girls. Scotland's population stands at 5.4 million, while India holds a massive 1.2 billion (Indian Government, 2011; Scottish Government, 2023a). Scotland, being a constituent country of the United Kingdom, uses devolved powers and holds their own democratic Government. Scotland's local authorities (local governments) oversee the planning of their local parks, via their own planning documents. In India, there is a sovereign federal structure, with a central government located in New Delhi, and each Indian state also has their own level of governance and plans.

India experiences intense poverty and inequality. Despite the United Kingdom being one of the biggest economic centres in Europe, Scotland faces similar issues of poverty and discrimination (albeit to a lesser extent) (International Trade Administration, 2023). These countries hold different levels of infrastructure and organisation of urban and rural spaces. Scotland has advanced, well-organised infrastructure and India, despite widespread growth, still experiences a great deal of informal development, water sanitation, and waste-management issues. Regardless of Scotland's advanced development, there are struggles with digitalisation and participatory engagement within their planning system with the Scottish Government (2023b) Digital Strategy for Planning recently terminated due to a reduction in capital allocation. Furthermore, given resource scarcity, India faces similar issues, but valuable insights can be gained from Scotland's pitfalls and, via enhanced digital governance, India can avoid these exclusionary planning practices.

3. Inadequate park provisions for teenage girls in Scotland and India

Teenage girls' low utilisation of parks is potentially being caused by non-inclusive governmental planning. To learn lessons that are transferable to India, Scotland's naivety surrounding engagement and planning of parks for teenage girls will now be examined. In later sections, the subsequent effects experienced by girls that are exacerbated by these park issues will be investigated.

The lack of park provisions for teenage girls reflects a broader issue of insufficient youth engagement in urban planning. Scottish Government (2017) research found only 1% of those engaged in the planning process were young people. This disparity is reflected in the inadequate planning of parks which often fail to consider the needs of younger girls, with

a UK Girlguiding (2020) survey stating 82% of teenage girls believed they should be more involved in the planning of open spaces.

Successful parks for teenage girls are context-dependent and can only be created with their engagement. However, worldwide, teenage girls' want parks to feel safe, clean and social, with areas exclusively for them (Make Space for Girls, 2023a; United Nations, 2013b). Some of the features they would like, for example, are larger swings, social seating and walking loops, inclusion of lights, and secure toilets (ibid).

4. Scotland's park provisions

In Scotland, teenage girls face barriers created by local authorities planning documents and negative perceptions that limit their utilisation of park spaces. In Scotland, local authorities have power over their locality's parks, but most authorities' plans do not mention a gendered approach to teenage park design. Thus, teenage girls all over Scotland have reported parks provide little for them, and that they feel unwelcome there (Fife Council, 2023; Play Scotland, 2023). Authorities often promote Multi Use Games Areas (MUGA) to cater to teenage play. However, this cage-like structure is male-centric and designed for sport, not play. Authorities could be seen to be attempting to take a gender-neutral approach here, but, in doing so may be marginalising girls. Research by Barker et al. (2022) states MUGAs simply do not cater to girls at all, with Make Space for Girls (2023b) finding only 8% of MUGA users were female.

The Scottish Government seems to understand the essential role parks play in well-being, with their recent spending of £60 million toward play park maintenance and improvements (Scottish Government, 2022a). However, plans like Edinburgh Council's (2016) Play Area Action Plan shed negative views of teen utilisation of parks. For example, they state that lighting will usually not be provided in parks because "Lighting may make a play (park) more vulnerable to vandalism as teenagers may be more likely to congregate there after dark" (Edinburgh Council, 2016, p.16). Governmental documents stating these unfavourable opinions of teenagers not only influences decisions around, park planning, design, and budget allocations, but also generates negative perceptions regarding teenagers socialising. This in turn reinforces the belief that teenagers do not belong in parks due to antisocial behaviour. However, this antisocial behaviour could be attributed to a lack of youth engagement. In contrast to that plan's statement, studies involving local authorities showed that upgrading parks through engagement with teenagers resulted in a complete depletion of anti-social behaviour, including vandalism (Cabe Space, 2005).

5. India's park provisions

Like Scotland, India experiences a lack of representation, engagement, and gaps within governmental plans around planning for teenage girls. Research exposes discriminatory social norms and the exclusion of women and girls in the planning of public spaces has limited their ability to navigate and use these spaces (Kaul and Shrivastava, 2017; UNICEF, 2017; Viswanath and Mehrotra, 2007). This lack of inclusion, they state, leads to male-dominated parks, resulting in Indian women, especially teenage girls, being less likely to use them (ibid). Park spaces for play seem to be dismissed within Indian governmental legislation and schemes. The Delhi Parks and Gardens Society, who contributes to the

development of parks for the Government of Delhi, expressed India holds no legislative policy which provides neither overarching or detailed guidance of designing parks for play (Indian Government, 2015). The Society produced their own information on parks - however, there was no mention of catering to the needs or desires of teenagers (ibid). Given governmental unfamiliarity around teenage girl's use of park spaces, professionals are alarmed. Rahul Goel, an assistant professor at the Indian Institute of Technology called out for the feminisation of public spaces after research found teenage girls were less likely to go outside than boys (BBC News, 2023). Perhaps to counteract this issue, management of neighbourhood parks has been increased by Residents Welfare Associations (RWAs as well as the creation of governmental schemes (i.e. the Chief Minister's Park Beautification Scheme) which aims to expand and improve Delhi's parks (Hindustan Times, 2021). However, according to Ro (2019), play within parks is restricted by RWAs often catering parks to the needs of exercising and restricting opening times to allegedly reduce antisocial behaviour. Furthermore, the beautification scheme seems to be more centred around the investment of aesthetics, rather than youth utilisation. This aesthetic approach may be dismissive towards young people according to a teenage girl interviewed by Mahdiar and Dali (2016, p.126). She stated, "*The social environment of a park is more important than its beauty. Beautiful landscapes (are) for adults rather than teenagers.*" Despite efforts, India also seems to hold discriminatory planning practices towards girls, aside from impractical schemes which are dismissive of teenagers' utilisation of parks.

6. Well-being implications of inadequate park provisions for teenage girls in Scotland and India.

In both countries, lack of engagement, discrimination and exclusionary governmental plans are producing parks that girls feel unwelcome in, which in turn takes away opportunities for in-person social connections. Research shows that the main coping mechanism of Indian and Scottish teenage girls, which proved vital to their well-being involved meeting up with friends and speaking about their problems, without observation of their parents (Nagabharana et al., 2021; Scottish Government, 2022b). The following section explores the evident need for adequate parks for well-being and how, without them, girls' social development gaps may be leading to a downfall in mental health, leaving them susceptible to other issues in later life. Economic conditions and cultural norms aside, parallels can be drawn for India, suggesting that India's non-inclusive park spaces may cause major issues for future generations of women.

7. Scotland's well-being implications

In Scotland, due to the Coronavirus Pandemic, most of today's teenagers spent their last years of childhood/ earlier teenage years isolated from in-person contact. During this time, there were limitations on use of public spaces such as parks, leading to a restriction of fostering friendships in person. Evidence shows that during the Pandemic smartphone dependence and virtual socialisation spiked, followed by a deterioration of young people's mental health due to feelings of loneliness (Plan International, 2020). Today, this trend of isolation continues, states Haidt (2024), as teenagers are replacing real-life socialising, for their smartphones at home. With park spaces failing to consider gender differences, girls are seen to be more likely to seek virtual connections compared to boys. A Scottish

Government (2022b) survey highlights this, showing that teenage girls are almost 50% more likely than boys to feel socially excluded if they could not virtually communicate with their friends. This dependence on online contact could be detrimental to girls' social and emotional well-being according to Wales et al. (2022) and Hartas (2020). They emphasise that social relationships occurring in the public realm, rather than online,

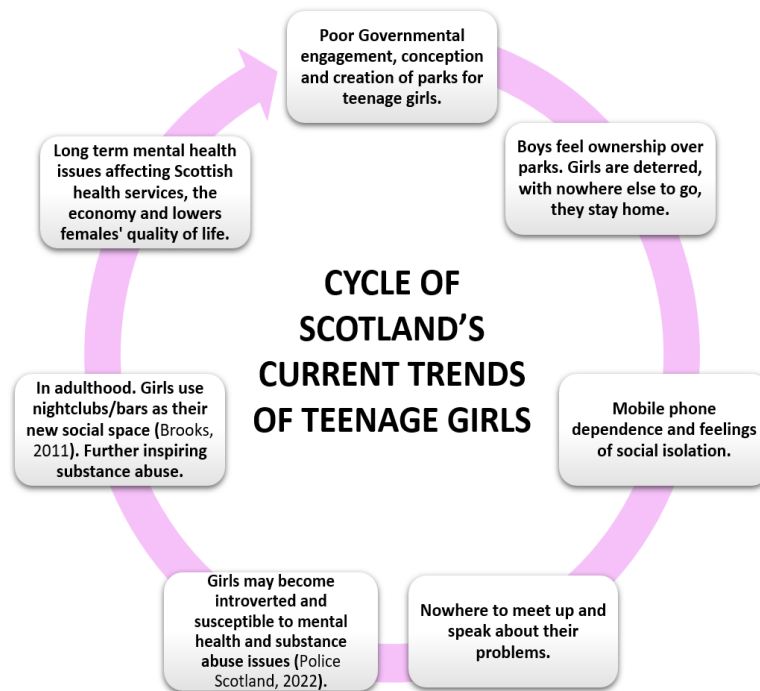


Figure 1. Cycle of Scotland's Current Trends of Teenage Girls. Source: Author, Gray (2024a).

are crucial for teenage development and mental health (ibid). Alarmingly, a lack of social interactions can also make females more susceptible to mental health issues and substance abuse later in life (Police Scotland, 2022).

Figure 1 (Gray, 2024a) shows a proposed lifecycle, displaying current trends within Scottish teenage girls. Using existing sources, this illustrates that parks failing to be adequately designed for girls may create domino-like effects that can diminish girls' quality of life. Figure 1 (Gray, 2024a) displays that the lack of adequate parks contributing to a lack of socialisation may be accelerating girls into substance abuse and poor mental health, with a well-established link worldwide between poor mental health, substance abuse and early death/ suicide (Devin et al., 2023; World Health Organization, 2023). The following Scottish studies underpin this cycle in Figure 1 (Gray, 2024a), that after teenage isolation is established, poor mental health follows, making females more susceptible to engage in substance use. Riley and Hayward (2004) found lack of social opportunities was one of the main reasons Scottish participants in their study took drugs; half experienced paranoia or anxiety because of drug use. Their study also exposed those females who tended to have access to free drugs, putting them at a vulnerable disadvantage that may incline them to engage in use (ibid). Scotland has a culture of substance abuse, with drug-related deaths the highest in Europe and moreover historically disproportionately high in females (BBC News, 2023; Scottish Government, 2018). Disproportionate female drug deaths

are attributed to social isolation and poor mental health (ibid). Thus, it could be said that social isolation of teenage girls, enabled by lack of park spaces, could be classed as a largely unrecognised root cause of girls' and women's poor mental health and substance use. This represents the critical role adequate parks may play in girls' future outcomes and quality of life.

8. India's Well-being Implications

Parallel to Scotland, India's lack of park space, powered by a lack of engagement, may also be causing the mental downfall of teenage girls. As stated previously, teenage girls use hanging out and talking with friends to sustain their mental well-being (Nagabharana et al., 2021). However, sources illustrate teenagers in India are experiencing issues such as high suicide rates and substance abuse, both of which may be attributed to social disconnection. One of the leading causes of death of young Indian females is suicide, with a key suicide risk factor for teenagers being interpersonal problems (lack of creation or maintenance of positive personal relationships) (Kay, 2013; Vijayakumar, 2022). Similarly, youth substance abuse is common with ~13% of those under 20 years old in India participating in substance abuse (ChildLine India, 2008). Teenage substance abuse in India can also be linked to inadequate socialisation according to Kaushik (2020), who states it is accelerated by a lack of emotional support, low socioemotional competence, and poor mental health. It has been proven that poor quality socialisation can have major negative impacts on young people's lives, displaying the pivotal role adequate parks could provide to foster and maintain friendships, to enhance interpersonal skills and decrease risks of suicide and substance abuse.

In both countries, a relationship has been correlated between teenagers' lack of appropriate park spaces, isolation and depletion of social relationships, which in turn, provide negative outcomes later in life (Wales et al., 2022; World Health Organisation, 2023). However, identifying these common issues early allows solutions to be found for India, which could inspire a brighter outlook. One way for India to solve a potential cause of this lack of socialisation – non-inclusive parks – is through digital governance and digital planning engagement of teenage girls.

9. Proposed digital governance model

We have already discussed how parks that are unfit for teenage girls' use results in the girls' diminished social development which leads to risks later in life. There is a recognition of the importance of effective and transformative engagement strategies towards girls' utilisation of parks for their current and future well-being. The following sections of this paper will address how India could address these issues via digital governance and engagement. India has previously been successful in improving quality of life through digital means. For example, the Delhi Government commissioned the Safetipin app, which allowed public users to complete >25,000 safety audits within the city using their smartphones. This allowed recommendations for city improvements, such as fixing street lighting and adjusting police routes (Safetipin, 2019).

To prevent India from facing potential outcomes similar to those experienced in Scotland, Figure 2 (Gray, 2024b) presents a proposed strategy to develop teenage girl governance of Indian parks digitally. For step 1, the positive impact of teaching digital skills will be

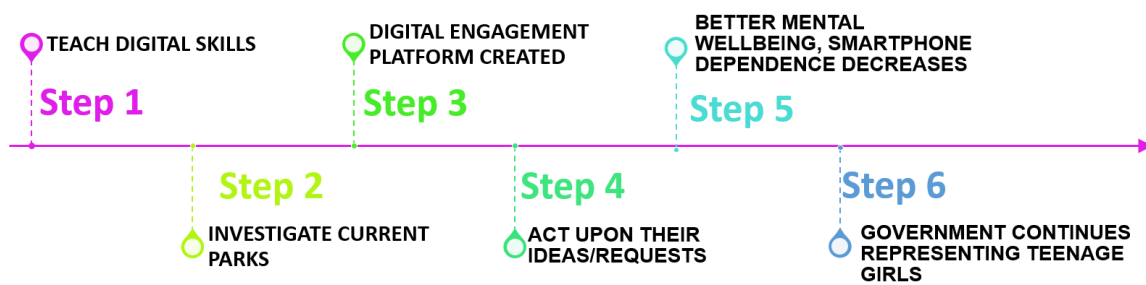


Figure 2. Proposed Digital Strategy. Source: Author; Gray (2024b).

explored, followed by step 2, explaining how to successfully investigate current parks. Step 3 then utilises digital means to gather data on teenage girls' preferences within parks, and step 4 ensures parks' successful implementation. Finally, step 5 and step 6 represent possible outcomes upon completion of this digital strategy. Additionally, with constrained resources throughout India, it is important to emphasise the following proposed process is context-dependent. It should be seen as a flexible means to utilise digital governance and engagement, which can be adapted to fit the community's needs.

Before steps within this strategy are explored in the following segments, it is important to consider Scotland's digital engagement failings, due to a lack of engagement and low governmental prioritisation of urban planning. In the United Kingdom, there are low public engagement rates in the planning process (UK Government, 2023). However, the Scottish Government (2020) Digital Planning Strategy created an opportunity to enhance engagement. It claimed it would digitally be "enabling everyone to get involved and shape their communities (...) using data to support and communicate decision making" (Scottish Government, 2020, p. 12). Unfortunately, recent governmental budget cuts have led to the termination of this investment in digital planning and this strategy. Thus, the potential to increase community involvement digitally has greatly diminished.

Furthermore, despite obvious use of social media amongst teenagers, the Government is reluctant to utilise it. Social media networks popular amongst teenagers, such as Instagram and Snapchat, are ignored as potential spaces to engage; many local authorities use Facebook as their sole social media outreach. This may be allowing a disconnect of education and communication around planning to teenagers, with Vogels et al. (2022) confirming Facebook is the site used least by teenagers. Despite this, previous initiatives have proven that engaging young people in the planning system through social media can enhance community involvement. For example, the UK Government (2023) found using social media caused an increase in responses in an online local authority poll, which collected more youthful and diverse responses. Scotland's digital failings build a foundation of knowledge surrounding issues India can avoid while striving towards better digital governance and engagement, which in turn could gather broader perspectives on spaces, potentially leading to the creation of more inclusive parks for teenage girls.

10. Step 1 - Teach Digital Skills

Step 1 of this proposed digital strategy highlights the importance of teaching digital skills to teenage girls. Later, it will be explored how these digital skills can be used in

the engagement and governance process to enhance India's parks, resulting in healthier, happier, and more educated girls.

In teaching digital skills, there is much to be considered. Firstly, cultural norms may limit girls' participation in these initiatives, so to source teenage girls, groups could utilise advertisements of digital education lessons to families, including through radio, SMS, WhatsApp, Telegram, community noticeboards or promotional leaflets. Both online and in-person signup options should be available. It is likely, due to India's cultural backdrop and lack of resources, that there will also be other barriers to digital teaching. Therefore, it is important that groups such as charities, non-governmental organisations, schools or community groups collaborate with those who could financially assist in the process and/or have an established presence in the area. Furthermore, digital devices may be subsidised by the Government for schemes like this, as the Indian Government (2019, p.193) recognises digital advances within education as a potential investment into future opportunities.

Teaching digital skills may feel like a strenuous task. However, girls having access to digital learning could create more engagement opportunities for parks, as well as provide other opportunities for India's development. Three key opportunities include the reduction of educational gaps, skill building for the future workforce, and improving future outlooks. Educational gaps exist among Indian females; ~43% of girls drop out before finishing secondary school and experience a lack of access to information (UNICEF, 2017). Despite facing these barriers, females can be seen to be perusing digital educational opportunities. This is exemplified through a study, in which ~70% of Indian teenage girls did not know how to use computer documents or social media, but almost all wanted to learn, and with more females than males using the internet for online learning purposes (Dang, 2019; Kantar, 2022). Secondly, skills of the future workforce. Digital growth could be enhanced and India's focus on STEM (science, technology, engineering, and mathematics) subjects could be utilised to good effect. The Indian Government's (2019, p.193) Roadmap to Digital Growth strategy, presents one of their goals as "Quality Education for All" alongside digital educational content delivery and learning, which could address educational disparities, and enhance skills. Lastly, via digital education, girls' mental health and quality of life could be improved. Exposing girls to smartphones, digital skills, and social media could contribute to female digital empowerment, virtual communication and future employability. However there are already alarming trends of teenagers virtual use in India. Parallel to Scotland, some Indian girls are beginning to rely on online messaging for fostering connections, leading to a decline of in-person socialisation in teenagers (Singh, 2019). In one study, teenage girls were found to be twice as likely to check their social media and virtual messaging updates compared to boys (Gangadharan et al., 2022). Therefore, within this digital education, it is important to provide girls with knowledge on how to use virtual communication responsibly, to mitigate various risks associated with overuse.

11. Step 2 - Investigate current parks

Step 2 allows girls to explore local parks and decide what they like and dislike about them. This will allow clarity of potential improvement options. After teaching digital skills to teenage girls, there should be a outreach to them. It is important that groups of teenagers investigate these parks, and not solely group leaders or decision-makers. Only teenagers

know what they want within parks. Perhaps a 'Girls Only' time within local parks could be arranged to allow girls to feel unconfined and safe to investigate. This will also allow girls to see what their digital skills could solve through engagement. Furthermore, for overall success, groups should define the desired outcome of each park visit is, and what each digital engagement strategy and park upgrade may be. Realistic expectations and budgets should also be set.

12. Step 3 - Digital platform created

Step 3 of the proposed digital strategy delves into enhancing digital governance and the creation of digital means for engagement. After step 1 of teaching digital skills and step

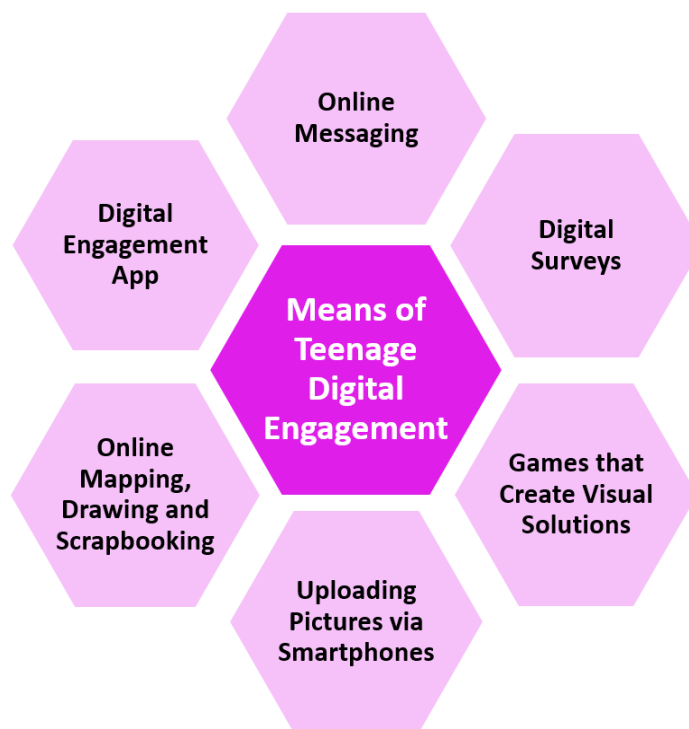


Figure 3. Means of Teenage Digital Engagement. Source: Author, Gray (2024c).

2 of investigating parks, digital engagement platforms can be created. This section will touch on alternative approaches centred around teenage girls. Femnet (2022) shares that in planning engagements, teenage girls tend to express themselves best within informal and imaginative activities, with United Nations (2015) highlighting that visualisation is an essential engagement tool for young people. Figure 3 (Gray, 2024c) presents digital engagement options ranging in cost and educational ability and reflects the importance of creativity within youth engagements.

The following points are the digital engagement options outlined in Figure 3 (Gray, 2024c) above to provide further detail.

- **Online messaging** for example through WhatsApp, Telegram, mailing lists, SMS or social media is essential for updating the girls, their communities, and other stakeholders. This also could allow for the fostering of relationships. One example

of online communication having successful outcomes, is an Indian project called WE For Us. Using a community noticeboard displaying a link to a WhatsApp community group, young people were notified of work opportunities aiding employment and skills for young people (Dar and Chopra, 2019).

- **Digital surveys** can be a low-cost and anonymous way to easily gather and analyse data. They can also present in audio form to support those with low literacy. However, Fass-Holmes (2022) found surveys aimed at young people commonly received low response rates due to participants experiencing diminishing interest and seeing it as a mundane task. However, digital surveys can be designed to be creative, colourful, and engaging. They can incorporate colour, background music and drawing options. All text should be written in a way young audiences will understand.
- **Games to create visual solutions.** The United Nations has made progress in utilising videogames like Minecraft as an effective form of youth engagement; however, it could be perceived this is not best suited for teenage girls' amusement. The University of Sheffield (2022) found almost 70% of video game users were males and United Nations (2015) stated gender must be considered when using video games as engagement tools. This is perhaps why alternative games should be researched and trialled. One example could be the Sims, a free digital game, in which players can design places within their virtual town and create 'Sims' characters within it. Imaginative park spaces could be designed by girls, producing visual representations of ideal parks. There is limited research of this game in relation to planning engagement. However, studies show Sims is preferred by females because of its realism and creativity (Vermeulen et al., 2011). With teenage girls expressing they liked the Sims game because they were able to explore "spatial possibilities (...) constructing living spaces, (...) and developing distinctive designs" (Dyson, 2008, p.199).
- **Uploading and taking pictures of parks**, easily allows for visual data to be collected and annotated to inspire ideas.
- **Basic forms of digital drawing, mapping, and scrapbooking** about parks allow visual and fun representations, which can be easily created and collected.
- **A digital engagement app could be created.** For example, a STEM workshop could allow teenage girls to aid an apps creation, followed by their utilisation of it to engage in park planning. One example of an app centring around engagement is the American app 'Community PlanIt'. This was a fun interactive digital game used by local governments, which successfully engaged young people in planning through earning digital credits for their participation (Boston City Council, 2011). Or an app could be made in collaboration with the government to be more streamlined and widespread. Apps like this have previously been successful in India. The innovative app SSG18, was created through collaboration with the Indian Government. The app allowed rural populations to facilitate governmental sanitation schemes by uploading data about their sanitation facilities via their smartphone. After just one month, the app received over 8 million responses, which in turn advocated improved sanitation, forming a better quality of life in rural areas (Kantar, 2019).

13. Step 4 - Act upon their requests

Step 4 ensures vitality of the parks created or improved through digital engagement. In

some cases, due to issues of communication, budgets, or conflicting priorities, there can be disparities between engagement inputs and implementation within the final design. This creates places that feel right to decision-makers, but do not reflect the thoughts and ideas of those engaged. It is vital that engagement data is valued throughout the implementation process to ensure teenage girls' successful utilisation in parks.

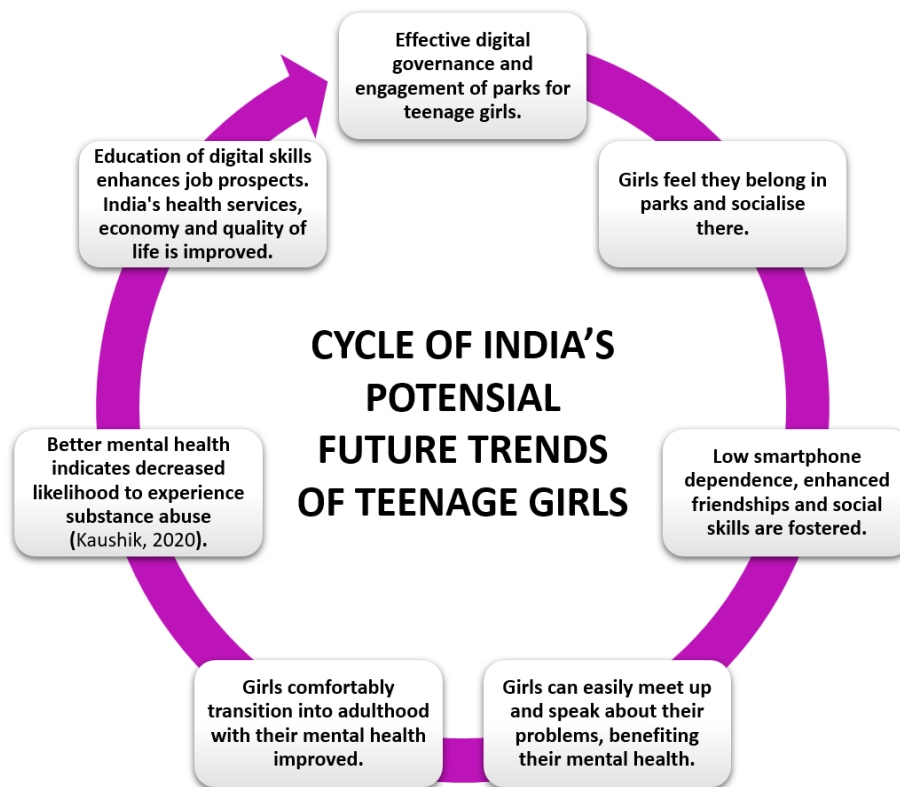


Figure 4. Cycle of India's Potential Future Trends of Teenage Girls. Source: Author, Gray (2024d).

14. Step 5 and Step 6 - Potential outcomes of digital strategy

Outcomes of the proposed digital strategy are displayed through, step 5 - Better Mental Well-being with Smartphone Dependence Decreasing and step 6 – the Government Continuing to Represent Teenage Girls.

Learning from the failings observed in Scotland, effective and transformative engagement strategies aimed at creating inclusive park spaces for girls are crucial. Steps 1 to 4 within the proposed digital strategy have highlighted a pathway to improved digital governance and engagement of teenage girls in India. Now steps 5 and 6 will portray outcomes of this process. Figure 4 (Gray, 2024d) below displays a lifecycle of India's potential positive future trends of teenage girls after using this digital strategy. This displays how digital education and engagement can potentially lead to adequate parks and influence teenage girls' current socialisation and future outcomes.

Because improving parks can foster girls' social connections, it also can potentially lead to lower reliance on online communication, and improve mental health (Make Space for

Girls, 2023a; Wales et al., 2022). Furthermore, providing digital education and engagement improves digital governance, female planning participation, and digital skills. This process also contributes to outcomes within a wider outlook. India's economy could be boosted with enhanced digitalisation and workforce education penetrating through to the lower working classes. Furthermore, India's healthcare system expenses could be lowered, with a decrease in mental health and substance abuse patient demand. Lastly, the female representation in public spaces through engagement and digital governance contributes to India's planning becoming more inclusive, allowing communities to be safer, happier, and more resilient.

15. Conclusion

In conclusion, this essay has explored how India can support teenage girls' mental well-being via inclusion of park planning through digital engagement. This was done by first exploring Scotland's mistakes in park planning and engagement. In Scotland, parks are not being planned according to teenage girls' wants and needs, due to local authorities being dismissive of teenage girls' use of parks within plans, as well as the termination of governmental provisions of digital engagement. Research within this report displayed that these failings may have led to a lack of socialisation in teenage girls, enabling social isolation and phone dependence, potentially resulting in poor mental health and substance abuse. However, these trends can be challenged and avoided. Using integrated digital learning and digital planning engagement, India could avoid Scotland's current outcomes and develop parks that are more inclusive. The proposed digital strategy could support parks to become more usable for girls through engagement, leading to enhanced socialisation, lower rates of smartphone dependence, and improvement of digital skills, which would reduce girls' mental-health related care and create a more digitally skilled female population, resulting in better career prospects.

There are two key lessons from Scotland that can be applied to India.

Lesson 1 - Recognise females within governmental plans and engage them in the planning and designing of spaces. Girls and women experience places differently than males. They hold unique concerns when it comes to parks that currently go unaddressed, which promotes discrimination and limits females' freedom of use, access, and safety in public spaces. In Scotland, lack of parks suitable for teenage girls has led to them experiencing a lower quality of life due to few social opportunities being provided. If the Government had engaged with girls on this issue, their parks could enhance socialisation, not deter it. India recognising females experiences and needs within parks via improvements in governmental policy could set a norm and reduce gender inequalities. India has challenges of resource allocation, but engagement of girls could enhance utilisation of spaces and sustainability. For example, resilient places could be created based on various local perspectives. This could provide better governance and encouragement of sustainable lifestyles in places like parks when they are designed to cater to everyone.

Lesson 2 – Utilise digital engagement and digital education to build future resilience. Despite wealth, Scotland has not kept up to date with digital means of engagement, leaving many without a voice in the planning process. India's vast and diverse population means traditional in-person planning engagement methods are unlikely to effectively capture the perspectives of numerous individuals. Unlike Scotland, if India developed their digital engagement outreach (including through social media for teenagers), regardless

of age, location or socioeconomic status, residents could be informed and empowered to contribute to the planning and design of their public spaces. India's digitalisation is developing and to build future resilience, youth digital education is essential to deliver technological skills and to create prosperous future outlooks. For teenage girls, digital platforms can also strengthen the means of communication and their access to information.

References

- Arup (2022) 'Cities Alive: Designing cities that work for women' [Online]. Available at: <https://www.arup.com/perspectives/publications/research/section/cities-alive-designing-cities-that-work-for-women> (Accessed: 03 December 2023).
- Barker, A. Holmes, G. Alam, R. Cape-Davenhill, L. Osei-Appiah, S. and Warrington Brown, S. (2022) 'What Do Teenage Girls Like And Dislike About Park Play Spaces And Multi-use Games Areas?' [Online]. Available at: <https://eprints.whiterose.ac.uk/194518/> (Accessed: 06 December 2023).
- BBC News (2023) 'Why Half of India's Urban Women Stay at Home', Soutik Biswas, 02 March [Online]. Available at: <https://www.bbc.co.uk/news/world-asia-india-64810339> (Accessed: 17 December 2023).
- BBC News (2023). 'Scottish Drug Deaths Drop to Lowest Level for Five Years', 22 August [Online]. Available at: <https://www.bbc.co.uk/news/uk-scotland-66572155> (Accessed: 07 December 2023).
- Boston City Council (2011) 'Community Planit'. Boston: New Urban Mechanics [Online]. Available at: <https://www.boston.gov/civic-engagement/community-planit> (Accessed: 24 December 2023).
- Brooks, O. (2011) 'Consuming Alcohol in Bars, Pubs and Clubs', *Annals of Leisure Research*, 11(3-4) [Online]. Available at: <https://www.tandfonline.com/doi/epdf/10.1080/11745398.2008.968680?needAccess=true> (Accessed: 06 December 2023).
- Brown, H. (2022) 'Glasgow becomes UK's first feminist city', *The Scotsman*, 27 October [online]. Available at: <https://www.scotsman.com/news/people/glasgow-becomes-uks-first-feminist-city-as-town-planning-motion-from-councillor-holly-bruce-passes-3896633> (Accessed: 01 July 2024).
- ChildLine India (2008) 'Child Drug Addiction in India' [Online]. Available at: <https://www.childlineindia.org/a/issues/addiction> (Accessed: 19 December 2023).
- Cabe Space (2005) 'Decent parks? Decent behaviour?', Commission for Architecture and the Built Environment [Online]. Available at: <https://forestry.gov.scot/images/corporate/pdf/CABEDecentparksDecentBehaviour.pdf> (Accessed: 05 December 2023).
- Dang, G. (2019) 'Teenage Girls in India: Aspirations and Reality', *Brookings*, 03 April [Online]. Available at: <https://www.brookings.edu/articles/teenage-girls-in-india-aspirations-and-reality/> (Accessed: 24 December 2023).
- Dar, A. Chopra, D. (2019) 'Placemaking through Co-Design processes: A Case Study of Jai Hind Camp, Delhi', *Social Design Studio* [Online]. Available at: <https://www.sciencedirect.com/science/article/pii/S2666558124000198> (Accessed: 26 December 2023).
- Devin, J. Lyons, S. Murphy, L. O'Sullivan, M. and Lynn, E. (2023) 'Factors Associated With Suicide In People Who Use Drugs', *BMC psychiatry*, 23(1) [Online]. Available at: <https://link.springer.com/article/10.1186/s12888-023-05131-x> (Accessed: 6 December 2023).
- Dyson, L. (2008) 'Teenage girls play house. The cyber-drama of The Sims', p.199 [Online]. Available at: https://link.springer.com/chapter/10.1057/9780230583306_19 (Accessed: 19 December 2023).
- Edinburgh Council (2016) 'Play Area Action Plan 2011-2016'. Edinburgh: Edinburgh Council, p.16

- [Online]. Available at: <https://www.edinburgh.gov.uk/downloads/file/22571/play-area-action-plan-2011-2016> (Accessed: 04 December 2023).
- Fass-Holmes, B. (2022) 'Survey Fatigue. What Is Its Role in Undergraduates' Survey Participation and Response Rates?', *Journal of Interdisciplinary Studies in Education*, 11(1) [Online]. Available at: <https://eric.ed.gov/?id=EJ1344904> (Accessed: 30 December 2023).
- Femnet (2022) 'Teenage Girls Engagement Strategy', The African Women's Development and Communication Network [Online]. Available at: <https://www.femnet.org/wp-content/uploads/2022/02/FEMNET-Teenage-Girls-Engagement-Strategy.pdf> (Accessed: 30 December 2023).
- Fife Council (2023) 'Fife's Play Sufficiency Assessment'. Glenrothes: Planning [Online]. Available at: <https://storymaps.arcgis.com/stories/7c56c8baf70d4e0a9cad84e189dc1724> (Accessed: 07 December 2023).
- Gangadharan, N. Borle, A. Basu, S. and Navya, G. (2022) 'Mobile Phone Addiction as an Emerging Behavioral Form of Addiction Among Adolescents in India', *Cureus*, 14(4) [Online]. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9067330/#:~:text=It%20was%20also%20observed%20that,0.015> (Accessed: 08 December 2023).
- Girlguiding (2020) 'Girls Attitudes Survey 2020' [Online]. Available at: <https://www.girlguiding.org.uk/globalassets/docs-and-resources/research-and-campaigns/girls-attitudes-survey-2020.pdf> (Accessed: 03 July 2024).
- Gray, H. (2024a) Figure 1 'Cycle of Scotland's Current Trends of Teenage Girls' (Created: 08 December 2023).
- Gray, H. (2024b) Figure 2 'Proposed Digital Strategy' (Created: 08 December 2023).
- Gray, H. (2024c) Figure 3 'Means of Teenage Digital Engagement' (Created: 08 December 2023).
- Gray, H. (2024d) Figure 4 'Cycle of India's Potential Future Trends of Teenage Girls' (Created: 08 December 2023).
- Haidt, J. (2024) 'The Anxious Generation', Random House [Online]. Available at: https://books.google.co.uk/books?hl=en&lr=&id=uCvAEAAAQBAJ&oi=fnd&pg=PT7&dq=the+anxious+generation+2024&ots=SV6dz-pdpP&sig=bwrrBmnCXZYKgljK3UvZqeQfejC&redir_esc=y#v=onepage&q=lockdown&f=false (Accessed: 05 July 2024).
- Hartas, D. (2020) 'Teenage Play and Peer Interactions: Virtual, Social and Emotional Geographies', pp. 1-31 [Online]. Available at: https://link.springer.com/chapter/10.1007/978-3-030-60001-3_1 (Accessed: 08 December 2023).
- Hindustan Times (2016) 'Girls more affected by lack of open spaces in Mumbai', Tanushree Venkatraman, 13 June [Online]. Available at: <https://www.hindustantimes.com/mumbai/girls-more-affected-by-lack-of-%20open-spaces-in-mumbai/story-32AFiNg8QS1qMVlwBlqn7H.html> (Accessed 22 December 2023).
- Hindustan Times (2022) 'Govt Draws Out Plan to Beautify Delhi's Gardens and Parks', HT Correspondent, May 24 [Online]. Available at: <https://www.hindustantimes.com/cities/delhi-news/govt-draws-out-plan-to-beautify-delhi-s-gardens-and-parks-101653330796657.html> (Accessed: 08 July 2024).
- Indian Government (2011) 'Population Finder 2011'. New Delhi: The Ministry of Home Affairs [Online]. Available at: <https://censusindia.gov.in/census.website/data/population-finder> (Accessed: 01 July 2024).
- Indian Government (2015) 'Maintenance and Up Keeps of Children Parks'. New Delhi: Delhi Parks and Gardens Society [Online]. Available at: https://dpgs.delhi.gov.in/sites/default/files/DPGS/pdf_files/minutes_of_meeting_2015-16.pdf (Accessed: 20 December 2023).
- Indian Government (2019) 'India's Trillion-Dollar Digital Opportunity', p. 193. New Delhi: Ministry of Electronics and Information Technology [Online]. Available at: https://www.meity.gov.in/writereaddata/files/india_trillion-dollar_digital_opportunity.pdf (Accessed: 28 December 2023).
- Indian Government (2023) 'Safe City Projects'. New Delhi: The Ministry of Home Affairs [Online]. Available at: <https://www.mha.gov.in/en/divisionofmha/women-safety-division/safe-city-projects>

- (Accessed: 29 June 2024).
- International Trade Administration (2023) 'United Kingdom Country Commercial Guide'. Washington DC: U.S. Department of Commerce [Online]. Available at: <https://www.trade.gov/knowledge-product/united-kingdom-market-overview> (Accessed: 02 July 2024).
- Kaul, K. Shrivastava, S. (2017) 'Safety of Women in Public Spaces in Delhi. Governance and Budgetary Challenges', Centre for Budget and Governance Accountability [Online]. Available at: <https://www.cbgaindia.org/wp-content/uploads/2017/01/Women-safety-in-delhi.pdf> (Accessed: 28 December 2023).
- Kantar (2019) 'A New Paradigm for Digital Citizen Engagement in India' [Online]. Available at: <https://www.kantar.com/uki/industries/government-and-public-sector/digital-citizen-engagement-in-india> (Accessed: 29 December 2023).
- Kantar (2022) 'Internet in India 2022' [Online]. Available at: https://www.iamai.in/sites/default/files/research/Internet%20in%20India%202022_Print%20version.pdf (Accessed: 30 December 2023).
- Kaushik, V. (2020) 'Getting the Monkey Off Your Back: Teen Perceptions of Substance Abuse among their Peers in Delhi', *Journal of Psychosocial Research*, 15(2) [Online]. Available at: <https://www.proquest.com/docview/2475528314?sourcetype=Scholarly%20Journals> (Accessed: 17 December 2023).
- Kay, M. (2013) 'Suicide Is Leading Cause of Death in Young Indian Women, Finds International Study', *MBJ*, 26 March [Online]. Available at: <https://www.bmj.com/content/346/bmj.f1900.long> (Accessed: 17 December 2023).
- Mahdiar, Z. Dali, M. (2016) 'Adolescent Use of Urban Parks and their Social Environment Consequences', *Geografia*, 12(11) [Online]. Available at: <https://www.proquest.com/docview/2488709069?pq-origsite=gscholar&fromopenview=true&sourcetype=Scholarly%20Journals> (Accessed: 19 December 2023).
- Make Space for Girls (2023a) 'Research Report 2023' [Online]. Available at: <https://www.makespaceforgirls.co.uk/resources/research-report-2023> (Accessed: 06 December 2023).
- Make Space for Girls (2023b) 'Parkwatch Report September 2023' [Online]. Available at: <https://www.makespaceforgirls.co.uk/parkwatch> (Accessed: 04 December 2023).
- McDowell, L. (1983) 'Towards an Understanding of the Gender Division of Urban Space'. *Environment and Planning, Society and Space*, 1(1) [Online]. Available at: <https://journals.sagepub.com/doi/abs/10.1068/d010059> (Accessed: 02 July 2024).
- Nagabharana, T, Joseph, S. Rizwana, A. Krishna, M. Barker, M. Fall, C. Kumaran, K. and Krishnaveni, G. (2021) 'What Stresses Adolescents? A Qualitative Study on Perceptions of Stress, Stressors and Coping Mechanisms Among Urban Adolescents in India', *Wellcome Open Research*, 6 [Online]. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8170530/> (Accessed: 08 December 2023).
- Plan International (2020) 'The state of girls' rights in the UK 2020' [Online]. Available at: <https://plan-uk.org/file/plan-uk-state-of-girls-rights-coronavirus-reportpdf/download?token=gddEAzLz> (Accessed: 15 December 2023).
- Play Scotland (2023) 'The State of Play in Scotland 2023' [Online]. Available at: <https://www.playscotland.org/wp-content/uploads/State-of-Play-in-Scotland-2023.pdf> (Accessed: 15 December 2023).
- Police Scotland (2022) 'Social Media Guidance for Parents & Carers', *Police Scotland Cybercrime* [Online]. Available at: <https://www.cyberscotland.com/wp-content/uploads/2022/08/Police-Scotland-Social-Media-Guidance.pdf> (Accessed: 14 December 2023).
- Riley, S. Hayward, E. (2004) 'Patterns, Trends, and Meanings of Drug Use by Dance-drug Users in Edinburgh', 11(3) [Online]. Available at: https://www.tandfonline.com/doi/abs/10.1080/09687630310001643111?casa_token=fvsMFokwGjEAAAAA:O7bf12LqRaa8fQo-IGKKbAdyha45_PQXluZPIYWW6Q_oopmthn-lhzWcFyjfRXUH3Je0dJ5AoLk (Accessed: 11 December 2023).
- Ro, C. (2019) 'Are India's Parks For Looking At Or Playing In?', *Forbes*, 17 October [Online]. Available at: <https://www.forbes.com/sites/christinero/2019/10/17/are-indias-parks-for-looking->

- at-or-playing-in/ (Accessed: 02 July 2024).
- Safetipin (2019) 'Safetipin Case Study Delhi' [Online]. Available at: <https://safetipin.com/case-study-delhi/> (Accessed: 18 December 2023).
- Scottish Government (2017) 'Barriers to community engagement in planning: a research study'. Edinburgh: Planning and Architecture Division [Online]. Available at: <https://www.gov.scot/publications/barriers-to-community-engagement-in-planning-research/> (Accessed: 01 July 2024).
- Scottish Government (2018) 'Why are drug-related deaths among women increasing in Scotland?' Edinburgh: Health and Social Care [Online]. Available at: <https://www.gov.scot/publications/drug-related-deaths-women-increasing-scotland-9781787810129/pages/4/> (Accessed: 07 December 2023).
- Scottish Government (2020) 'Transforming Places Together', p.12. Edinburgh: Building, Planning and Design [Online]. Available at: <https://www.gov.scot/publications/transforming-places-together-scotlands-digital-strategy-planning/> (Accessed: 09 December 2023).
- Scottish Government (2022a) 'Information on the £60m Play Park Renewal Fund'. Edinburgh: Children and Families [Online]. Available at: <https://www.gov.scot/publications/foi-202200305397/> (Accessed: 08 December 2023).
- Scottish Government (2022b) 'Life at Age 14: Initial Findings from the Growing Up in Scotland Study'. Edinburgh: Children and Families [Online]. Available at: <https://www.gov.scot/publications/life-age-14-initial-findings-growing-up-scotland-study/pages/6/> (Accessed: 09 December 2023).
- Scottish Government (2023a) 'Scotland's Census 2022 - Rounded Population Estimates' [Online]. Available at: <https://www.scotlandscensus.gov.uk/2022-results/scotland-s-census-2022-rounded-population-estimates/#section10> (Accessed: 07 July 2024).
- Scottish Government (2023b) 'Scottish Budget:2024 to 2025'. Edinburgh: Economy Money and Tax [Online]. Available at: <https://www.gov.scot/publications/scottish-budget-2024-25/documents/> (Accessed: 03 July 2024).
- Singh, V. (2019) 'Impact of Social Media on Social Life of Teenagers in India' [Online]. Available at: <https://dergipark.org.tr/en/download/article-file/683176> (Accessed: 20 December 2023).
- UK Government (2023). 'How The Adoption Of Digital Tools Increased the Number of Responses to Planning Consultations'. London: Department for Levelling Up [Online]. Available at: <https://www.localdigital.gov.uk/case-studies/how-the-adoption-of-digital-tools-increased-the-number-of-responses-to-planning-consultations/> (Accessed: 04 December 2023).
- UNICEF (2017) 'Adolescent Development and Participation', UNICEF India [Online]. Available at: <https://www.unicef.org/india/what-we-do/adolescent-development-participation> (Accessed: 02 December 2023).
- UNICEF (1990) 'The United Nations Convention on the Rights of the Child' [Online]. Available at: <https://www.unicef.org.uk/wp-content/uploads/2016/08/unicef-convention-rights-child-uncrc.pdf> (Accessed: 02 December 2023).
- United Nations (2010) 'The Millennium Development Goals Report 2010', p.22 [Online]. Available at: <https://www.un.org/millenniumgoals/pdf/MDG%20Report%202010%20En%20r15%20-low%20res%2020100615%20-.pdf> (Accessed: 02 July 2024).
- United Nations (2012) 'United Nations Population Fund. Adolescent and Youth Demographics' [Online]. Available at: <https://www.unfpa.org/sites/default/files/resource-pdf/One%20pager%20on%20youth%20demographics%20GF.pdf> Accessed: 07 July 2024).
- United Nations (2013a) 'Charter of Public Space', p.2 [Online]. Available at: <https://habnet.unhabitat.org/sites/default/files/documents/Charter%20of%20Public%20Space.pdf> (Accessed: 29 June 2024).
- United Nations (2013b) 'Adolescent Girls' Views on Safety in Cities', UN Habitat [Online]. Available at: https://hercity.unhabitat.org/app/uploads/2022/10/New_Adolescent_Girls_Views_Safety_in_Cities_2013.pdf (Accessed: 02 December 2023).
- United Nations (2015) 'Using Minecraft for Youth Participation in Urban Design and Governance',

- UN Habitat [Online]. Available at: <https://unhabitat.org/using-minecraft-for-youth-participation-in-urban-design-and-governance> (Accessed: 29 December 2023).
- United Nations (2021) 'About Her City', UN Habitat [Online]. Available at: <https://hercity.unhabitat.org/about> (Accessed: 02 December 2023).
- University of Sheffield (2022) 'UK Games Industry Census 2022', 17 March [Online]. Available at: <https://www.sheffield.ac.uk/news/games-industry-census-2022-reveals-working-home-shift-increase-mental-health-struggles> (Accessed: 01 July 2024)
- Vermeulen, L. Van Looy, J. Courtois, C. and De Grove, F. (2011) 'Girls Will Be Girls: A Study into Differences in Game Design Preferences Across Gender and Player Types', University of Ghent [Online]. Available at: <https://core.ac.uk/download/pdf/55870539.pdf> (Accessed: 20 December 2023).
- Vijayakumar, L. Chandra, P. Kumar, M. Pathare, S. Banerjee, D., Goswami, T. and Dandona, R. (2022) Evidence-based Risk Factors for Suicide in India Across the Lifespan Infographic', *The Lancet Psychiatry*, 9(2) [Online]. Available at: <https://www.thelancet.com/infographics-do/suicide-risk-india> (Accessed: 06 December 2023).
- Viswanath, K. Mehrotra, S. (2007) 'Shall we go out? Women's Safety in Public Spaces in Delhi'. *Economic and Political Weekly* [Online]. Available at: <https://www.jstor.org/stable/4419521> (Accessed: 06 December 2023).
- Vogels, E. Gelles-Watnick, R. and Massarat, N. (2022) 'Teens, Social Media and Technology 2022', Pew Research Centre [Online]. Available at: <https://policycommons.net/artifacts/2644169/teens-social-media-and-technology-2022/3667002/> (Accessed: 01 December 2023).
- Wales, M. Martensson, F. Hoff, E. and Jansson, M. (2022) 'Elevating the Role of The Outdoor Environment for Adolescent Well-being in Everyday Life', *Frontiers in Psychology*, 13 [Online]. Available at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2022.774592/full> (Accessed: 23 December 2023).
- World Health Organization (2023) 'Suicide - Face Sheets' [Online]. Available at: <https://www.who.int/news-room/fact-sheets/detail/suicide> (Accessed: 18 December 2023).