Methodological Appendix of the Study:
Socio-Digital Skills and Wellbeing of Disadvantaged Young people

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Overview of methodology

This study combined qualitative focus groups with an online survey. The survey was distributed to a broad sample of British youth, while the focus groups participants came exclusively from the group of young people formally classified as Not in Education, Employment or Training (NEET).

The five focus groups were conducted during the month of August 2016. They took place in The Prince's Trust points of delivery of educational and social programmes aimed at NEET youth (including further education colleges, the Prince's Trust centres, and fire stations). Each of the discussions lasted from one to one and a half hours and involved anywhere from four to eight participants, between the ages of 16 and 26. Some of the focus groups included participants of a single sex, others were mixed. The groups were based on pre-existing groups formed as part of the Prince's Trust programmes but the respondents were free to opt in or out of participation when the focus groups were held during one of their programme days. Contributions by participants will be anonymised in all publications. Quotes will also be kept as close as possible to the original expressions used by these young people to make sure their voices are authentically heard with only minor amendments/additions if the original wording is likely to cause problems in understanding. The survey sampling aimed for 800 internet users in the UK between 16 and 24 and a booster sample of 400 NEET youth. The survey was created and managed on LSE servers and distributed to Toluna's[1] survey panel and (for the NEETs) their partner panels. The final sample consisted of 1344 young people who on average had used the internet 10 years; to a representative sample of 1026 young people and a sample of 318 NEETs which was majority female. The different regions were represented with 238 individuals from London, 939 from the rest of England, 82 in Scotland, 51 in Wales and 34 in Northern Ireland.

The initial survey design was based on existing survey instruments from the *From Digital Skills to Tangible Outcome* (DiSTO), *The Basic Digital Skills Framework* (DotEveryone), *Global Kids Online, World Internet Project* and *Ofcom surveys*; the focus groups fed into the development of final survey design. In effect, the focus group took different sections of the initially designed survey instrument as conversation starters and used this form of group cognitive interview to generate original, in depth qualitative data as well as improve and adapt the questionnaire.

In the rest of this document more detail is presented regarding the methodological choices made for both the focus groups and the survey. This document also includes a description of the focus group guide and the items designed for the questionnaire.

The project passed the London School of Economics and Political Science (LSE) ethics guidelines.

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[1] http://www.toluna-group.com/

Focus groups details

This section describes the rationale, procedure and analytical framework used for the focus groups with NEETs.

Rationale

Focus groups were chosen to gather rich, qualitative data, based on three main considerations: 1) ease of access to a hard-to-reach group of young adults, 2) a need to obtain first hand narratives of everyday experiences, and 3) the possibility to elicit comparative and socially contextual accounts. Below we discuss these in more detail.

First, NEET youth - especially the most vulnerable young people at the group's periphery - are classified as a hidden and hard-to-reach population due to compound types of exclusion. Socio-economic deprivation, experiences of homelessness, lack of social support, unstable home environments, disengagement from the educational system, criminal behaviour and mental health issues make NEETs a difficult group to access for research purposes. Given the practical difficulties of recruiting NEET participants within temporal and financial constraints of the project we opted for working with pre-established groups of young NEET people who met regularly for purposes other than research. The Prince's trust TEAM and Fairbridge programmes are aimed at supporting and offering training for NEETs from disadvantaged backgrounds. Five groups from these programmed (two in London, one in Manchester, one in Brighton, and one in Stoke-On-Trent). By choosing to engage with these pre-existing groups of NEETs, we were able to reach the most marginalized young people in this disadvantaged group (the Prince's Trust Fairbridge Programme that works with the most vulnerable young people). An additional benefit of conducting the research with these groups is that the travel burden and unfamiliarity-related stress are reduced because discussions took place in settings and at times that did not interrupt the routines of participants. The first London-based focus group consisted of only two participants and was used as a pilot focus group; it helped to refine and improve the focus group guide and procedures.

Second, to understand the digital life worlds of these vulnerable young people, to give depth to this understanding alongside the more generalisable survey data, and to make the voice of this group heard, we needed to elicit accounts of everyday practices with ICTs as experienced by NEETs. The open-ended, story-eliciting approach used in qualitative interviews generates detailed, personal accounts and gives participants a chance to talk about their experiences in their own words. Both individual interviews and focus groups would have fulfilled these criteria. However, issues of inequality in power and status between the researchers and the participants in studies with vulnerable individuals are less prominent when focus groups are used, because individuals are positioned along with their peers and share experiences with each other as much as with the researcher. From existing research we know that NEETs' histories and everyday experiences often consist of repeated rejection, belittlement, disempowerment, and lack of acknowledgement by others. Therefore, focus groups were considered the most appropriate methodology for this project.

Third, focus groups allow elicitation of a variety of accounts from different participants dealing with similar issues. In the social setting of a group conversation individuals hear each others' answers, stories, and arguments, thus participants are enabled to construct their personal narratives drawing on similarities and differences in relation to their peers. Unlike

other qualitative methods, this kind of participant engagement can bring to the surface both shared and individualistic experiences, emotions and disagreements that might have remained unvoiced due to being unnoticed, or perceived as obvious or insignificant in individuals' own accounts.

Procedure

Each of the five focus groups had an interactive design. The participants answered one of five blocks of survey questions related to their digital skills, ICT access or use (i.e. from the national survey - see the next section). After having completed each block, the survey questions were used as a starting point for discussion and questions were asked to ensure clarity and inform the development of the survey. The more structured questions after each block were followed by open discussions centred on questions pertinent to that specific section of the survey. The participants were encouraged to speak freely about their experiences and discuss any aspect of digital engagement they found important or significant to them personally. Each focus group was recorded using an audio recorder and the recordings were then transcribed verbatim by the professional transcription service *Way With Words*[2].

The focus groups were organised to fit into the flow of the day's programme for each specific pre-existing group. Therefore, unintended biases might have been introduced. For example, one of the groups took place right after a workshop on computer programming, potentially leading the participants to discuss issues that occurred during that ICT centred workshop. It would have been less likely for this to have been part of the discussion if the group was conducted on another day. The analysis of the focus groups took this into account.

Analytical approach

Thematic analysis was used to do the analysis for the '*Slipping through the net*' report. This started by using the conceptual framework developed for the survey, with general overall starting themes for analysis being access, different types of use, skills, barriers and obstacles in engagement, and opportunities and benefits of engagement. Motivations and attitudes and support networks were pre-set to be explored as emerging themes. These all had subcategories as defined in the DiSTO project[3] and related literatures. These subcategories are detailed in the description of the survey that follows in the next section.

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[2] https://waywithwords.net/
[3] http://www.lse.ac.uk/media@lse/research/DiSTO

Survey details

The survey data collected through a questionnaire hosted on LSE servers was designed to identify general trends in ICT access, skills, use, and outcomes of this engagement by NEETs as well as to compare them to the general population of young Brits. The survey was distributed online through the panel of Toluna and took about 20 minutes to complete. The survey did not include open-ended questions and focused on asking young people to report their opinions or behaviours based on a pre-set list of answer categories and options. These closed questions and answer categories were derived from the literature, previous tested survey instruments and adjusted based on the information gathered through the focus groups. In addition to usual limitations of survey research (e.g. errors in self-reports, drop out), the responses to the survey in this study were vulnerable to errors stemming from lower traditional literacy levels by NEETs. This is a widely discussed problem in existing research with vulnerable youth and some problems in comprehension were indeed observed during the focus groups. Therefore, there is a chance that some respondents in the national survey answered at random without having understood the question. However, an effort to account for the issues was made by employing adjustable scales with pictures (e.g. smiley face scale) over standard word categories (e.g. agree-disagree).

This rest of this document details the sampling procedure, the questions asked and the creation of composite variables for the 'Slipping through the net' report.

Sampling

In the sampling of the survey there were three issues that required sample adjustments: a difficulty in reaching a minimum number of respondents in Wales and Northern Ireland, a greater tendency for women to respond, and a lower response rate for NEETs in the first panel sample. The first was partially dealt with by leaving the survey open until a minimum of 50 was achieved for Scotland and Wales. We were unable to reach that minimum for Ireland within the fieldwork period and had to close at 34. The second was dealt with by closing the survey for women and continuing sampling until there was a minimum of 400 men in the non-NEET sample. The third was partially remedied by contracting Toluna partner panels and leaving the survey open for longer than planned. This lead to an increase of NEET participants but we were still not able to achieve the full 400 we set out to sample. This means that, while we are fairly confident that the non-NEET sample is representative of young British Internet Users, we suspect that the NEET sample might be more digitally engaged and skilled and that it is more female than the general internet using NEET population.

The final composition of the sample was as follows:

Category	N
NEETs	318
Employed	263
Students	504
Working Students	259

Category	N
16 to 18	415
19 to 21	456
22 to 26	473

Category	N
Men	466
Women	865
Other gender	18

Category	N
London	238
Rest of England	939
Scotland	82
Wales	51
Northern Ireland	34

Questionnaire

A close-ended, structured, five-part survey based on existing surveys dealing with digital exclusion was designed prior to the start of fieldwork. Minor adjustments were introduced in light of the findings from the qualitative focus groups (e.g. phrasing of the questions and the order of the questions were changed in some instances). After a section with general questions about the respondent's socio-demographic and psychological background, the survey consisted of five separate sections enquiring about ICT access (i.e. what kind of devices the respondents have, where do they access the Internet), their attitudes towards ICTs (i.e. their motivations to use and perceptions of ICTs), digital skills (i.e. what they can and cannot do online), digital social capital (i.e. the support networks that they have available and the support that they give to others), digital engagement (i.e. what kind of activities they undertake through ICTs), tangible outcomes of ICT use (i.e. what kind of tangible outcomes they achieved from their digital activities).

Below the items developed for the Access, Skills, Support Networks, Motivations and Attitudes, Uses and Outcomes sections are discussed. In addition, a description is given of how the composite variables used in the 'Slipping through the net' report were created.

Rights of use

This questionnaire was developed as part of the 'Socio-Digital Skills of Disadvantaged Youth' project funded by The Prince's Trust with support from Samsung.

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Access

The access questions consisted of questions about devices, frequency of use and the locations at which connected ICTs were used.

Devices
Question: Do you have access to the following devices?

Answer categories: Computer (desktop or laptop); Mobile phone (one that you can only make calls and send text messages on); Smartphone (a phone that you can access the Internet with or download apps on); Tablet or eReader (for example, iPad, Kindle, etc); Games console; Other.

Frequency of use
Question: How often you connect to the Internet using the following devices (for example, for searching information, e-mail, social networks, maps, etc. on each of the following devices). If you don't have the device please select the option 'Never'.

Answer scale: Several times a day; Daily; Weekly; Monthly; Less than monthly; Never; Don't know.

Answer categories: Computer; Phone; Tablet or e-reader; Games console.

Composite variable mobile mostly
This composite variable was calculated by looking at whether the phone was used more often than any of the other devices. To do this the several times a day and daily categories were merged. Thus if a young person used their smartphone daily or several times per day and any of the other devices weekly they were a mobile mostly user, if they used it weekly and other devices were used monthly or less than monthly they were also a mobile mostly user.

Ubiquity[4]
Question: In the last month, how did you connect to the Internet? Please select all that apply.

Answer categories: I used mobile data (from my service provider) on my phone; I used a separate Internet connection at home; I went to a friend's/neighbour's home to connect ; I connected at work/school/college; I used public WiFi hot-spots; I went to an Internet cafe or public library.

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[4] Adapted from the World Internet Project Survey (www.worldinternetproject.net)

Motivations and Attitudes

After a review of the literature, there is no large-scale systematic survey tool for the measurement of different motivations and attitudes towards the use technologies, therefore our questions were based on available qualitative studies (e.g. Cushman & Klecun, 2006; Eynon & Geniets, 2016; Park, 2014).

Answer scale for all motivation and attitudes questions:

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree; Don't know.

Composite variables motivations and attitudes
Breadth of motivation was measured through the summing of the number of times a person agreed somewhat or strongly with the statements on a scale. The attitudinal and social digital ecology scales were created by averaging the agreement across the items on the scales which ranged from: 1 'Strongly disagree' to 5 'Strongly agree'.

Individual Motivations
Question: Please indicate how much do you agree or disagree with the following statements about why you use technologies such as the Internet and mobile phones. I use the Internet and mobile phones because...

Answer categories:
They offer an entertaining way to pass the time; They enable me to maintain a connection with people who are important to me; They can help me to participate better in a study or workplace; They help me to stay on top of news, sports or events; They allow me to share my ideas and things I create.

Attitudes
Question: Please indicate how much do you agree or disagree with the following statements about the internet and technologies such as mobile phones
Answer categories:
Technologies such as the internet and mobile phones make life easier; Given a choice, I would prefer to do things offline (e.g. in person); There are a lot of things on the internet that are good for people like me; Technologies fail when you need them the most; Online you are in constant danger of harassment and bullying

Societal attitudes and pressure
Question: Please indicate how much do you agree or disagree with the following statements about the internet, technologies such as mobile phones and the people around you.

Answer categories:
My family encourages me to use technologies such as the Internet and mobile phones; Knowing how to use technologies is beneficial when trying to get a job ; If I don't keep up with the development of technologies I feel left behind ; What I put online about myself now will influence my future opportunities ; I feel that people pressure me to be constantly connected.
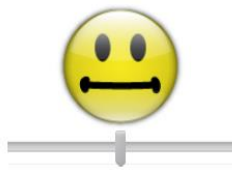
Trust

From the skills section two trust questions were later considered to reflect attitudes rather than skills.

Information question: How much of the information on the Internet is generally reliable? (Slide the bar to the left if you think none of it can be trusted and to the right if you think most of it can be trusted).

People question: Generally speaking, would you say that most people can be trusted online, or that you can't be too careful in dealing with people on the Internet? (Slide the bar to the left if you think you can't be too careful and to the right if you think most people can be trusted).

Answer scale:

The smiley was neutral to start with (see image) and would turn into a happy smiley when a bar was moved to the right and a sad smiley when the bar was moved to the left. The answer scale had five points from 1 (complete distrust) to 5 (full trust).

Skills

The skills section consisted of an overall confidence question and specific skills questions.

Confidence
Overall, how confident would you say you are as a user of the internet and technologies such as mobile phones? (Slide the bar to the left if you are not confident at all and to the right if you are very confident)

Skills
All skills questions consisted of the following format based on the DiSTO measures[5]:

Question: Please indicate how much the following statements apply to you when thinking about how you use the Internet and technologies such as mobile phones (If you don't get what the question is referring to, tick the last box in the row 'I do not understand what you mean by this').

Answer Scale:
Not at all true of me; Not very true of me; Neither true nor untrue of me; Mostly true of me; Very true of me; I do not understand what you mean by this.

Composite skill variables
High level skill scores were calculated by counting the number of times a person indicated that a skill statement was 'very true of me' among items on that particular dimension. Average skills scores assumed that someone who did not know what a skill was did not have it and thus got a score of 0. The scale consisted of 0='don't know what this means' and a scale from 1 to 5 where 1='not at all true' of me and 5='very true of me').

Operational skills: I know how to save a photo that I find online or receive on an app ; I know how to open a new tab in a browser; I know how to use programming language (for example, XML, html, C++).
Information Navigation Skills: I find it easy to check if information I find online is true; I find it easy to decide what the best keywords are to use for online searches; Sometimes I end up on websites without knowing how I got there.
Social Communicative skills: I know which information I should and shouldn't share online; I know how to remove people from my contact lists; I am careful to make my comments and behaviours appropriate to the situation I am in online; I know how to report negative content relating to me or a group to which I belong.
Content Creation skills: I know how to create something new from video or music that I found online; I know how to edit or make basic changes to online content that others have created; I know how to design a website; I know which different types of licenses apply to online content.
Mobile Protection skills: I know how to install apps on a mobile device (for example, a phone or tablet); I know how to keep track of the costs of mobile app use; I know how to make decisions about using the location settings on my mobile devices.

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[5] http://www.lse.ac.uk/media@lse/research/DiSTO

Support Networks

The support networks section consisted of questions about 1) support available, 2) support used and 3) support offered. There were quite a few answers in the 'Other' category, which led us to create additional answer categories. These have been indicated with a star (i.e. they were not part of the official questionnaire), 'Other' answers that could be categorised in one of the existing categories were recoded as part of those.

Support available
Question: If you needed help, would there be someone who could help you with using the Internet or mobile phones? Answer categories: Yes; Maybe; No

[If previous was Yes or Maybe] Question: Who of the following could help you?

Answer categories:
Friends; Partner; Parents/Caretakers; Co-workers/ fellow students; Brothers/Sisters; My child/children; Librarians; Internet Cafe employees; Help desk; Teacher*; Online communities/people*; Other family members*; Another person

Support used
Question: Have you looked or asked for help to use the Internet or mobile phone in the past three months? Answer categories: Yes; No; Don't know.

[If previous was Yes] Question: Who was the person(s) you went to for help?

Answer categories:
Friends; Partner; Parents/Caretakers; Co-workers/fellow students; Brothers/Sisters; My child/children; Librarians; Internet Cafe employees; Help desk; Online platform (for example, YouTube, Help functions on websites, Discussion boards); Another person.

Support offered
Question: Have you helped someone use the Internet or a mobile phone in the past three months? Answer categories: Yes; No; Don't know.

[If previous was Yes] Question: Who was the person(s) you helped?

Answer categories:
Friends; Partner; Co-workers/fellow students; Brothers/Sister; Parents/Caretakers; Grandparent; My child/children; Other family member*; Client/Customer*; Unknown other (offline)*; Another person.

Composite support variables
The 'breadth of support' variable was calculated by summing all the sources of support indicated. The informal support variables were created by summing the confirmatory answers for friends and family members (including partners, siblings and (grand)parents). The expert support networks variables were created by summing the other categories (including co-workers/fellow students, Help desks, Online platforms).

Uses

The uses section consisted of four categories of uses: economic (including education and employment), cultural, social and personal well-being related uses. All these questions had the same format derived from the DiSTO framework[6].

Question: In the last 3 months how often have you done the following things on the Internet and technologies such as mobile phones?

Answer scale uses variables:
Several times a day; Daily; Weekly; Monthly; Less than monthly; Never; Don't know.

Composite uses variables
Averages were calculated on those activities that were undertaken in the   last three months (i.e. excluding those who answered don't know and never).

Personal well-being answer categories:
Look up information on how to improve your fitness; Talk to others about your lifestyle (for example about health, food, the way you dress, travel, etc); Look for information about events or concerts; Look up information to understand problems or issues that interest you; Play games online or on an app; Watch videos/TV programmes; Post online videos or music that you have created.

Economic answer categories:
Buy something online; Look for information how to sell something you own; Look up information about government services you might be entitled to (e.g. benefits, taxes); Managing your personal finances (online banking, paying bills) :Look for a (different) job; Talk to others online about job opportunities : Look for information about a course, certificate or course provider :Participate in distance learning (for a course, degree or job training).

Social answer categories:
Comment on the updates friends or family put online; Share pictures of you with your family or friends; Interact with or talk to people from backgrounds or places different to yours; Look for information on social or sports clubs (for example, gym, music or arts clubs); Get information about government policy on issues such as the environment or immigration; Sign a petition related to a societal or political issue (for example related to animal welfare, the NHS, ending poverty, human rights).

Cultural answer categories:
Look up information to understand problems or issues that interest you; Come across websites or videos that promote extremist views or actions; Look for information about issues that are relevant to people of the same age as you; Arrange with other people to go out; Come across "adult" sites with sexual content; Find or check a fact; Come across information that helps you understand religious or spiritual needs

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[6] Please see the DiSTO reports for more detail and justification of this categorisation
http://www.lse.ac.uk/media@lse/research/DiSTO

Outcomes

The outcomes section consisted of the economic (including education and employment), cultural, social and personal well-being outcomes categories as well as a question about negative outcomes.

Negative emotional outcomes:
Question: In the past year, has anything ever happened online that bothered or upset you in some way? (e.g. made you feel uncomfortable, scared or you feel that you shouldn't have seen it). Answer categories: No; Yes; Don't know; Prefer not to say.

[If previous Yes] Question: The last time something happened online that bothered or upset you, did you talk to any of the following people about it?

Answer categories:
My mother or father (or step/foster mother or father) ; My brother or sister (or step/foster/half siblings) ; A friend ; A teacher ; My partner ; A colleague ; Someone else I didn't talk to anyone; Don't know

Tangible outcomes
All the tangible outcomes questions had the same question wording**7**

Question: Thinking about what you did online or on your mobile phone in the last three months, how much do you agree or disagree with the following statement? If you did not do something or it does not apply to your situation, just select Not Applicable.

Answer scale:
Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree; Not applicable; Don't know.

Composite outcome variables
Averages were calculated over those that had tried to achieve an outcome (i.e. they did not answer not applicable or don't know). Strongly agree or strongly agree answers were classed as fully or partially achieving an outcome. Education outcomes were asked for the last year rather than the last three months.

Personal well-being answer categories:
I have made decisions about my health or medical care as a result of the information/advice I found online ; Information I found online gave me more confidence in my lifestyle choices ; My knowledge increased because of the Internet (i.e. looking up information, talking to others) ; Using the Internet helped me to form opinions about complex issues I did not fully understand ; Online entertainment (games, listening to music, reading jokes) made me feel happier; I went to events and concerts I would never have otherwise considered or known about ;I learned something new by searching online.

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[7] Please see the DiSTO reports for more detail and justification of the categorisation and wording.
http://www.lse.ac.uk/media@lse/research/DiSTO

Social answer categories:
I have been in touch frequently with close friends and family through the internet or mobile phones; I was in touch with people who are not close friends or family more than I was in touch with those kinds of people offline; I became a member of a hobby or leisure club or organization through information or sites I found online; I became a member or donor of a civic organization (for example, those involved in environmental or human rights campaigning) through information or sites I found online; I discovered online that I am entitled to a particular benefit, subsidy or tax advantage; I got in touch with local MPs or politicians through the internet or mobile phones.

Economic answer categories:
I saved money by buying things online; I sold things online that I could not have sold offline; I found a job through the internet that I could not have found offline; I got a certificate or degree that I could not have gotten without the Internet; I found educational material online that I could not have found offline; I paid bills or got financial information online.

Cultural answer categories:
Through the Internet I found people that share my interests; Through the Internet I learned new things about people with a similar ethnic background to me; Due to the information I found and people I have met online I feel more connected with religion or spiritual beliefs; I was confronted with others online who made me feel uncomfortable about certain aspects of my identity.