

Research on youth exposure to, and management of, cyberbullying incidents in Australia

Part A:

Literature review on the estimated prevalence of cyberbullying involving Australian minors

Prepared for:

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Research on youth exposure to, and management of, cyberbullying incidents in Australia

Eight reports were produced in this series of publications; these are listed below.

Synthesis report

- Part A: Literature review on the estimated prevalence of cyberbullying involving Australian minors
- Part B: Cyberbullying incidents involving Australian minors, the nature of the incidents and how they are currently being dealt with
- Part C: An evidence-based assessment of deterrents to youth cyberbullying
 - Appendix A: Literature review – International responses to youth cyberbullying and current Australian legal context
 - Appendix B: Findings of research with adult stakeholders
 - Appendix C: Findings of research with youth
 - Appendix D: Supplementary data and analysis

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Abbreviations

ACBPS	Australian Covert Bullying Prevalence Study
ACMA	Australian Communications and Media Authority
ARACY	Australian Research Alliance for Children and Youth
ARC	Australian Research Council
AUKOS	Australian Kids Online Study
GfK	GfK Australia
JSC	Joint Select Committee on Cyber-Safety
NCYLC	National Children's and Youth Law Centre
SNS	Social Networking Site
SPRC	Social Policy Research Centre
SWO	Safe and Well Online
UniSA	University of South Australia
UWS	University of Western Sydney
Young and Well CRC	Young and Well Cooperative Research Centre

Glossary

For the purpose of this report and research:

Bullying	Any behaviour that is repeated, intended to cause harm and is based on or causing an imbalance of power.
Bully-victim	A person who is both a bully and a victim.
Cyberbully	The person (perpetrator) conducting the cyberbullying.
Victim	The victim of the cyberbullying activity.
Cyberbullying	Any communication using a digital device or medium (e.g. smartphones and social media sites) with the intent to coerce, intimidate, harass or cause substantial emotional distress to a person. This may include posting embarrassing or harmful photos, videos, or rumours relating to an individual and can include using social media features to actively promote and spread the harmful content.
Prevalence	The number of people in a given population who are subject to a certain condition in a particular timescale.
Incidence	The number of new occurrences of a condition in a particular population over a specific time period.
Reported incidence	The number of victims of cyberbullying reported in a specific timescale for a particular population, e.g. the number of victims in incidents reported to schools in 2013. Reported incidence can also refer to the number of incidents themselves, irrespective of the number of victims involved in those incidents. ¹

¹ A victim can be involved in a number of incidents in a particular period of time, and similarly one incident can involve several victims.

Executive Summary

This is the first report of a three-part series researching youth exposure to, and management of, cyberbullying incidents in Australia, commissioned by the Australian Government as represented by the Department of Communications. These findings inform Part B and Part C of this research and should be read in conjunction with those reports.

The objective of this part of the research is to estimate the prevalence of cyberbullying incidents involving Australian minors, based on a review of existing published research, including how such incidents are currently being dealt with.

This research draws from a wide range of domestic, international and grey literature. The research provides a basis upon which to predict the extent of cyberbullying amongst minors in an Australian context in order to inform how it is managed.

Determining the prevalence of cyberbullying is fraught with difficulties in terms of definition and measurement. The prevalence rates differ widely depending on how cyberbullying is defined, how the question is asked, and who responds to the question.

Recent Australian studies suggest that a conservative prevalence for being cyberbullied would be in the vicinity of 20 per cent of children aged 8-17 years in a 12 month period. This estimate takes into account the varying methods and samples used in the Australian studies examined for this report.

This gives a rough estimate of the number of children involved in cyberbullying as somewhere between 460,000 and 560,000 children in a 12 month period.

This finding is within the estimates of other international studies which ranged in prevalence from 0.9 per cent to 72 per cent, with reviews of published studies indicating an average of around 24 per cent. Most estimates indicate that rates of cyberbullying are still lower than rates of traditional bullying. However, there are also indications that Australia has higher rates of cyberbullying than European countries due to the higher levels of internet use of Australian children.

The Australian studies also confirm international research evidence which indicates that cyberbullying is most prominent among middle-school aged youth (10–15 years). The studies suggest an inverse U-pattern: starting at low levels before the teenage years, increasing until mid-teen years, and then beginning to decrease over time. However, little is known about when children start cyberbullying or whether the age at which cyberbullying starts is changing over time.

Findings are inconsistent, internationally and in Australia, regarding the gender balance of cyberbullies, with some studies indicating more girls engaging in cyberbullying behaviour whereas others show cyberbullying by boys to be more prevalent. Gender seems to be a function of the type of cyberbullying behaviour; Some devices, methods of cyberbullying, and social networking platforms, are more

preferred by girls whereas others are more preferred by boys. Girls appear to be more likely to be victims in Australian and international cyberbullying studies.

Internationally and in Australia it is recognised that there is significant harm associated with bullying and cyberbullying. Studies have found that it is more than just hurtful name calling and can lead to serious psycho-social and life problems.

There is some evidence in Australia and internationally that cyberbullying has increased over the past decade. However, the reasons for this are not clear. It could be an artefact of the higher levels of use of technology, the increased availability of smart phones, the shift from response-based interactions (text) to user-design and created (multi-media), or the elevated awareness of cyberbullying as a contemporary behaviour. Alternatively, the apparent increase may arise from the methods used to measure prevalence such as the timeframe used, how the question was framed, and whether a definition of cyberbullying was provided.

Internationally, responses to cyberbullying incidents have involved strategies at the individual, school and parental level, and categorised as three approaches: reducing risk (prevention); combatting cyberbullying (technical and practical strategies/interventions); and strategies which buffer the negative impacts of cyberbullying (emotional coping and emotional support).

In Australia, responses to cyberbullying most commonly include telling teachers and family members, and blocking or ignoring the cyberbully. As children age they are less likely to tell parents, and more likely to seek support from independent, anonymous and/or online sources.

Australian parents' responses to cyberbullying include speaking to or educating the child (most commonly), blocking the cyberbully, doing nothing, informing the school, contacting the parents of the cyberbully, and restricting the child's use of the computer or mobile phone.

Australian teachers most commonly respond to cyberbullying by informing and involving parents, engaging in counselling with all parties involved, and by the use of warnings or class discussions. The involvement of police was only marginally less common a response than warnings and class discussions.

There is increasing understanding of how young people, parents and teachers respond to cyberbullying incidents in Australia. However, there is still a gap in our knowledge about the effectiveness of those responses.

Systemic responses to cyberbullying prevention and response must leverage what works in existing anti-bullying strategies whilst acknowledging that cyberbullying presents many new and challenging issues. The real experts on these issues are Australia's young people; their participation and voice must be harnessed in the research, design and implementation of such responses for cyberbullying interventions to have optimal chances of success.

1 Introduction

The Australian Government, as represented by the Department of Communications, commissioned the Social Policy Research Centre (SPRC) at UNSW Australia, the University of South Australia, the University of Western Sydney, and the Young and Well Cooperative Research Centre to research youth exposure to, and management of, cyberbullying incidents in Australia.

Cyberbullying has become a significant issue for young people as they interact increasingly through social media. Yet for many stakeholders the legal status of cyberbullying is unclear. There is also little empirical, longitudinal evidence to inform policy makers in this area. This research aims to fill an urgent gap by summarising and appraising the current empirical evidence and by adding to it through analysis of new primary and secondary datasets, as well as through consultations with key informants.

The research aims to provide the Australian Government with evidence relating to the desirability of whether to create a new, separate cyberbullying offence and in its consideration of a new civil enforcement regime. The research involves three parts:

Part A: The estimated prevalence of cyberbullying incidents involving Australian minors, based on a review of existing published research including how such incidents are currently being dealt with.

Part B: The estimated prevalence of cyberbullying incidents involving Australian minors that are reported to police, community legal advice bodies and other related organisations, the nature of these incidents, and how such incidents are currently being dealt with.

Part C: An evidence-based assessment to determine, if a new, simplified cyberbullying offence or a new civil enforcement regime (CER) were introduced, how such an offence or regime could be implemented, in conjunction with the existing criminal offences, to have the greatest material deterrent effect.

This report presents the findings from Part A of the research: Identifying the prevalence of cyberbullying in Australia through a literature review.

1.1 Part A research purpose and scope

The main objective of this component of the research is to ascertain:

The estimated prevalence of cyberbullying incidents involving Australian minors, based on a review of existing published research, including how such incidents are currently being dealt with.

Part A aims to:

- Focus on Australian sources, as well as international sources to provide additional contextual information.
- Quantify the estimated incidents of cyberbullying involving Australian minors (youth aged under 18 at the time of the report).
- Outline how such incidents are currently being dealt with by Australian authorities.

Specifically, it includes, to the extent that the existing published research exists, the following categories of incidents:

- where the victim and offender were both minors
- where the victim was a minor and the offender was an adult
- where the victim was an adult and the offender was a minor
- where the offender was based in Australia
- where the offender was not based in Australia, was not an Australian citizen, or was unknown to the victim.

Australian data sources (research) on cyberbullying specifically considered include:

- The Safe and Well Online Study (SWO), by the Young and Well Cooperative Research Centre
- The Young and Well Cooperative Research Centre National Study
- The Joint Select Committee report on Cyber-Safety (2011): *High Wire Act*
- Published reports from the Department of Communication (previously the Department of Broadband, Communications and the Digital Economy) and the Australian Communications and Media Authority
- The Australian Covert Bullying Prevalence Study (ACPBS)
- Relevant work carried out by researchers in Australia including the Australian Universities' Anti-Bullying Research Alliance (AUARA); Edith Cowan University's Child Health Promotion Research Centre, and the Murdoch Children's Research Centre.

International data sources (research) on cyberbullying considered include:

- The European Cooperation of Science and Technology: Action on Cyberbullying (ISO801); involving 28 European countries
- KiVa: the Finnish National Anti-bullying studies

- The Eu/Au Kids Online studies
- PrevNet (Canda) and BrNet (USA) anti-bullying research collectives
- The Anti-Bullying Centre (ABC), (Dublin City University, Dublin: Formerly of Trinity College, Dublin)
- The Anti-Bullying Alliance (UK)
- The International Observatory of Violence in Schools.

National and international in-press material and grey literature were also examined where relevant.

Part A serves as a contextual foundation to inform Parts B and C.

Assumptions and limitations concerning estimates of prevalence of cyberbullying are discussed in Part A, with Parts B and C addressing and exploring these limitations.

Part B refines the prevalence data by analysing the quantity and nature of cyberbullying incidents involving Australian minors that are reported to police and other authorities.

1.2 Assumptions

Consideration is given to the following definitions:

Bullying: School-based bullying is a systematic abuse of power in a relationship formed at school, characterised by:

- **aggressive acts** directed (by one or more individuals) toward victims that a reasonable person would avoid;
- acts which usually occur **repeatedly** over a period of time; and
- acts in which there **is an actual or perceived power imbalance** between perpetrators and victims, with victims often being unable to defend themselves effectively from perpetrators (Hemphill et al., 2014, p 3).

Sometimes children or teenagers say or do hurtful or nasty things to someone and this can often be quite a few times on different days over a period of time. This can include: teasing someone in a way this person does not like; hitting, kicking or pushing someone around; leaving someone out of things (Green et al., 2011, p 31).

Cyberbullying: Definitions used in the studies described in this report are as follows:

- Aggressive, intentional acts carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself (Smith et al., 2008; Smith & Slonje, 2010, p. 249).

- Cyberbullying is any behaviour performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others. In cyberbullying experiences, the identity of the bully may or may not be known. Cyberbullying can occur through electronically mediated communication at school; however, cyberbullying behaviours commonly occur outside of school as well (Tokunaga, 2010, p 278).
- Any communication, with the intent to coerce, intimidate, harass or cause substantial emotional distress to a person, using electronic means to support severe, repeated and hostile behaviour (Department of Communications, 2014, p 3).
- Cyberbullying is when one person or a group of people repeatedly try to hurt or embarrass another person, using their computer or mobile phone, to use power over them. With cyberbullying, the person bullying usually has some advantage over the person targeted, and it is done on purpose to hurt them, not like an accident or when friends tease each other (Campbell, 2012, p 7*).
- When someone repeatedly uses the internet or a mobile phone to deliberately upset or embarrass somebody else. It is intended to harm others and can include sending mean or nasty words or pictures to someone over the internet or by mobile phone (ACMA: Like, Post Share, 2013*).
- Bullying carried out on the INTERNET, through messages, chats or online posts, or on mobiles and smart phones. It includes things like teasing, spreading rumours, ignoring or excluding people, and sending or posting threatening or unpleasant comments and images about someone (Young and Well National Survey, 2014*).

1.3 Limitations

There is a growing international and Australian empirical literature on the nature and extent of cyberbullying in the population from which this review has drawn. However, comparing various estimates of cyberbullying prevalence proves to be a difficult task (see Bauman et al., 2012; Kowalski et al., 2014; Li et al., 2012; Smith & Steffgen, 2013). Although there is consensus in research as to the key components of cyberbullying² (see Smith, 2014), there is no universally agreed definition. Different studies use different definitions, which provide varying estimates of the prevalence of cyberbullying. There is some disagreement amongst researchers about the role of repetition and the frequency of repeated incidents in definitions of cyberbullying,

² The agreed components of bullying are aggression, repetition and a power imbalance between the bully and victim. See section 2.2.1.

because unlike traditional bullying, a single act can be repeated by virtue of being reproduced on the internet. Prevalence rates also vary depending on how questions about cyberbullying experiences are asked, in particular whether participants are asked a global question such as 'have you been cyberbullied in the past 12 months' or whether they are asked a set of questions about specific experiences e.g. 'did anyone post an offensive message on a social networking site about you'.

There is no agreed timescale for the measurement of prevalence or incidence, and studies vary from asking participants if they have ever experienced cyberbullying to asking about experiences in the past year, term or even shorter periods.

Each study represents a point in time. As new technologies and digital inclusion advance, prevalence rates may change and also the type of bullying and the platforms used by bullies change. Thus prevalence studies have a limited shelf life.

Prevalence rates vary depending on the ages of the sample selected for particular studies, with younger children generally experiencing lower rates than teenagers or adults.

Prevalence is confounded by the lack of attention to the fact that victims can also be bullies, and that cyberbullying often overlaps with traditional bullying.

1.4 Structure of this report

This report is structured as follows:

- Section 2 provides an outline of the challenges of definition and implications for estimating prevalence;
- Section 3 provides a review of Australian and international prevalence studies in order to arrive at: an estimate of the overall prevalence of cyberbullying in Australia, including age and gender differences where possible;
- Section 4 describes the responses of victims and others to cyberbullying and how it is dealt with by responsible adults;
- Section 5 summarises the findings of this report, draws conclusions and makes recommendations.

2 Challenges of determining prevalence of cyberbullying

2.1 Introduction

Determining the prevalence of cyberbullying in the population is challenging, both conceptually and methodologically. Different approaches to definition, and measurement provide greatly varying estimates of the extent of cyberbullying in the community. This section discusses some of the key challenges in the definition and measurement of cyberbullying which are pertinent to the estimate of its prevalence in the population of young people in Australia. Bullying is explored briefly, as it is the underpinning construct.

2.2 Challenges, prevalence, evidence and the need for clarity

2.2.1 Definition of bullying

Whilst there is no definitively agreed definition of bullying (see Smith, 2014), it is widely accepted that bullying is differentiated from other forms of aggression by these specific elements:

- a deliberate intent to harm,
- a power differential between the parties concerned, and
- that it is repeated, or ongoing over time (Olweus, 1993).(see Section 1.2 above for further definitions)

Bullying is also not a single construct, and has variously been categorised in form as: overt/covert; direct/indirect; physical/verbal; social/relational; and having psychological/physical impact. How these behavioural aspects translate to understanding and defining cyberbullying is therefore also relevant (Langos, 2012; Menesini et al., 2013; Spears et al., 2009).

Genta et al., (2012) used four forms of bullying in the DAPHNE II questionnaire: *direct, indirect, using mobile phones and using the internet*. Noting that this data was collected in 2007-2008, it seems obsolete now to separate out mobile phones and the internet, due to the increasing uptake of smartphones and social networking.

Often lists of specific behaviours are used, with examples (see Smith, 2014, p 51) e.g.:

physical (hitting, kicking); *verbal* (teasing, taunting) *social exclusion* (systematic isolation); *indirect/relational*: (spreading nasty rumours; you can't play with us); *cyberbullying* (text, image, social networking); *bullying due to race, religion, disability or sexual bullying*.

Recently, the Australian Research Alliance for Children and Youth (ARACY) undertook to establish an agreed definition for bullying for Australian researchers and academics. After many consultations with national experts the following conceptual definition of bullying has been agreed (Hemphill et al., 2014):

Bullying is a systematic abuse of power in a relationship formed at school characterised by:

- **aggressive acts** directed (by one or more individuals) toward victims that a reasonable person would avoid;
- acts which usually occur repeatedly over a period of time; and
- acts in which there is an actual or perceived power imbalance between perpetrators and victims, with victims often being unable to defend themselves effectively from perpetrators.

While this definition is for research purposes, to assist the determination of prevalence in Australian studies in the future, and is accurate from a non-legal perspective, the law's definition of bullying requires the *notion of harm to the victim be included*.

This can be seen in anti-bullying legislation such as s789F of the *Fair Work Act 2009* (Cth). As the lens for this study/project is that of a legal perspective, it is suggested that the definition of bullying used, actually includes 'harm'. Bullying in relation to this study, can be considered to be *any behaviour that is repeated, intended to cause harm and is based on or causing an imbalance of power*. This approach clearly reflects the definition proposed by Olweus (1993, see above).

In terms of determining prevalence estimates of bullying, Solberg and Olweus (2003, p 239) outlined the following in relation to bullying, noting the importance of frequency and a specific timeframe:

Translated into the area of bully/victim problems in school, a period prevalence estimate of victimization, "having been bullied" or "being a victim," refers to the proportion or percentage of students in a school or other meaningful unit who have been exposed to bullying/victimizing behavior [sic] by other students with some defined frequency within a specified time period in the group of interest. A period prevalence estimate of bullying, "having bullied other students" or "being a bully," can be defined in a parallel way as the proportion or percentage of students who, within the specified time period, have exposed one or more other students to bullying/victimizing behavior with some defined frequency.

Solberg & Olweus (2003, p 241) further noted that there were several issues with accurately determining prevalence of bullying (and subsequently, cyberbullying), and all relate to the definition and the way it is used.

Prevalence of *traditional* bullying in Australia thus needs to be considered before trying to establish that of cyberbullying: and it has not been definitively determined in Australia to date.

According to Rigby's large, cumulative studies of students aged 8-17 years from the 1990s (Rigby, 1998), prevalence of being bullied at least once a week was reported as: 23.5 per cent overall: 25.5 per cent of boys (n=8,413) and 21.3 per cent of girls (n=7,452).

Cross et al. (2009) a decade later, reported from her study of 7,418 students aged 9–14 years, that:

being bullied every few weeks or more often (considered to be frequent) overtly and/or covertly during the last term at school, is a fairly common experience, affecting approximately *one in four Year 4-9 students (27%)*... and was highest among Year 5 (32%) and Year 8 (29%) students (Executive Summary, p xxi).

Two years later, Rigby & Smith (2011) in their quest to determine whether bullying was on the rise internationally, compared these two studies by extrapolating data across the same age grouping (9-14 years), and response option (at least once a week) (see p 448).

When applying the same criteria (age range and response option: at least once a week): the prevalence rate in the Cross et al. (2009) study, was found to be 16 per cent overall (17 per cent boys, and 16 per cent girls), as compared with 27 per cent they previously reported for bullying occurring *every few weeks or more often*. This highlights the importance of the time reference, as the prevalence estimate reduced considerably, suggesting that there may have been a drop in prevalence of bullying incidents over time for traditional bullying in Australia.

Compared to Rigby's earlier studies this seems to indicate a reduction in bullying in Australia over the previous decade. The caveat to this however, is the timeframe measured (*this term vs this year*).

After reviewing several international and Australian studies, Rigby and Smith (2011) reported that, contrary to public perception, there was evidence of a *modest decrease in reported bullying*, reflecting that the prevention, intervention efforts and increasing awareness and concerns about the issue were starting to have influence.

They particularly noted that any perception that the problem was getting worse might result in "inappropriate or draconian responses" (p 453). They also made the observation that cyberbullying had probably *increased* during the timeframe they reviewed (1998–2009), due in part to the proliferation of the online setting and personal devices, but were unclear if it was *continuing* to rise.

Solberg & Olweus (2003) further noted that there were several issues which impact on the reliability and validity of data being collected for prevalence purposes:

- Different data sources used (students, teacher; self-report; peer report)
- Provision of a definition or not
- Reference period or timeframe used to measure bullying/cyberbullying
- Response and number categories vary in number and specificity
- Single item versus composite score or scale index
- Different thresholds or criteria for differentiating victims from non-victims and bullies from non-bullies.

Cook et al. (2010), in their meta-analysis of 82 quantitative studies conducted between 1999 and 2006, explored the influence of certain factors on prevalence figures:

- *Informant source:*
 - peer nomination methods produced lower bully and victim rates than self or teacher/parent reports.
- *Time referent period*, past week, compared to past 30 days, to past six months
 - produced natural increases in prevalence figures,
 - the past year was found to be no higher than past 30 days.
- *Bullying measurement approach*
 - definition-based approach gave higher prevalence for bullies
 - behaviour-based approach gave higher rates for victims and bully-victims.
- *Location of study* (45 European; 21 USA; 16 other)
 - Bully rates were lower in the USA
 - Bully-victim rates were higher elsewhere.

Ybarra et al. (2012) examined the impact of different measurement approaches, and compared studies which varied by whether an Olweus-type definition was employed and whether the word “bully” was used. When compared across *monthly or more often*: rates for bullying were highest for the form that used neither the definition, nor the word *bully*; and lowest for the form which used the word in the instructions (Ybarra, 2012). Specifically, prevalence was lowest when “bully” was included: with the definition (34 per cent) or without (35 per cent); and were higher if the word “bully” was not mentioned: with the definition (39 per cent) or without (40 per cent) (only a list of certain behaviours) (see Smith, 2014). They concluded that using the word “bully” ensured that there was similar understanding between researchers and participants of the construct under investigation.

These are certainly pertinent to the two Australian studies noted earlier, as they had: different age groups; different reference periods (*every few weeks or more often vs at least once a week*); different measurement approaches (*definition/behaviour*) and different timeframes (*this year vs this term*). These issues and challenges are also highly pertinent when cyberbullying is considered.

2.2.2 Estimating the prevalence of cyberbullying

Estimating the prevalence of cyberbullying is an equally challenging task as that of traditional bullying: practically, conceptually and operationally. This is not only because cyberbullying raises the same issues as for traditional bullying as stated above by Solberg and Olweus (2003) and Cook et al. (2010) but also because there is a constant change in technologies used.

There are two approaches to conceptualising cyberbullying in relation to traditional bullying:

- that it is an extension of traditional bullying into the world of technology; and
- that there is indeed something unique about it.

Kowalski et al. (2014, p 52) found that individuals may be targets in both face-to-face and online settings, and suggested that this provides “support for the idea that cyberbullying can be considered an extension of traditional bullying”.

On the other hand some continue to argue that these forms of bullying are somewhat different (Menesini et al., 2011) due to, for example: anonymity factors, the breadth of the audience and the 24/7 nature of the setting. Cyberbullies can be anonymous, and can therefore gain power through the online disinhibition effect (Suler, 2004), that is, they are able to say and do things they would not do face-to-face. Anonymity also means that it is difficult to determine who the bullies are online, again contributing to the challenge of determining prevalence.

Smith (2014) summarised the distinctive and unique characteristics relevant to cyberbullying found in the extant literature, demonstrating support for the second approach:

- technological expertise/skill differences
- primarily indirect, not face-to-face
- perpetrators does not usually witness the victim’s immediate reaction
- bystander roles are more complex: bystanders can be with the perpetrator when sent/posted; with the victim when received; or neither (receives message or visits website)
- power is difficult to demonstrate publically to others for status gain
- breadth of potential audience is increased
- difficult to escape from it.

Because of these challenges, researchers (Frisén et al., 2013) have highlighted that prevalence estimates and comparison of studies for cross-cultural purposes are affected by the following:

- definition differences
- cut-off point (frequency of repeated incidents)
- reference period (timeframe) the participants are asked about.

Ybarra (2012, p 183) specifically outlined some of the reasons why wide variation might be found in studies reporting prevalence of cyberbullying, with most relating to the differences in measurement and methodologies, for example:

- *Data collection*: national random telephone surveys; online random surveys; online self-selected surveys; offline convenience samples
- *Sampling frames*: national, international, local, and from random to convenience
- *Age differences*: under 10; secondary/high school
- *Timeframe queried*: the longer the timeframe used, the greater the number of people who will have had the experience in question (*ever vs in the last couple of months*).

Noting these inconsistencies in how it is measured, Ybarra also drew attention to the following discrepancies regarding how the behaviour is established and understood within studies, where some:

- provide a definition within a questionnaire
- use a list of behaviours and no definition
- provide both.

Despite these challenges, most research definitions are based on those of Smith et al, which captures the essential components of bullying:

An aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself (Smith et al., 2008, p 376).

There is also contention that repetition and power imbalance, two key components of traditional bullying, might be experienced differently when online (Berne & Frisén, 2011; Menesini et al., 2012). How they are interpreted will thus influence prevalence estimates.

Technology is now so much more than the 'electronic forms of contact' stated by Smith et al. (2008): it is digital, diverse, convergent and sophisticated, and in order to capture prevalence as technology changes, it is critical to have a definition which clearly underpins the construct and reflects these ongoing changes in platform, device, usage and medium.

How the definition is then operationalised for the participants, and whether the question is posed as a global enquiry or as a set of behaviours to which to respond, clearly influences not only reliability and validity, but also prevalence.

Murphy & Davidshofer, 2005 (cited in Kowalski et al. 2014), noted that increasing the number of items in a measure has the effect of increasing the reliability of that measure. This has implications for the single item, global questions (Have you been cyberbullied this term/year?) which have been found to have greater chance of random error, and response biases (acquiescence, extreme responding, and social desirability).

What contributes to the difficulty in determining prevalence, and any change over time, also relates to the swift technological changes which have occurred in the last decade, and therefore raises the question: *are we measuring the same behaviours*

now, and therefore their prevalence, as when cyberbullying first emerged? What is the impact of younger children having greater access to technology and using it in ways that were unheard of a decade ago?

By way of example, Smith (2014, p 80) notes the changing face of research in this space: that in representative studies from the USA, in repeated surveys from 1999, 2004 and 2009, there was not a single question on mobile phones at all in 1999; only one asking about mobile phones or landline phones in 2004, but in 2009, average time spent in a typical day with mobile phones was noted: 1.33 hours texting and 0.33 hours talking. Similarly, they noted that in 1999, 0.27 hours was spent on the computer on average; 1.02 in 2004 and 1.29 in 2009.

Capturing the ephemeral nature of current online youth engagement with new platforms is another challenge to determining current prevalence levels of cyberbullying. The shift from static email to image-based social network sharing platforms, to increasingly user-designed and created interactive devices where there is an app for everything, expands the repertoire which will be required in order to establish how, when and where cyberbullying may take place: and thus impact on prevalence.

Ybarra (2012, p 185) suggests that in order to avoid 'double counting' of cyberbullying experiences which could impact on estimates of prevalence, 'that the concept of bullying, and therefore the measures, be framed as having three dimensions: *type* (physical, relational); *communication mode* (face-to-face, online, phone or text message); and *environment* (school, home, elsewhere)'. Cyberbullying then, would be bullying 'using specific modes of communication'.

Other particular challenges for determining estimates of prevalence include defining *an incident* of cyberbullying. For example, determining the difference between cyberbullying and *internet harassment* (Ybarra & Mitchell, 2004); *online harassment* (Finkelhor et al., 2000); *electronic aggression* (Pyżalski, 2012) and *cyber-aggression* where there is intention but not necessarily the other required components of cyberbullying, presents a challenge, not only to clarity (see Menesini et al., 2013), but also for endeavouring to determine prevalence. Aggressive online behaviour can include, for example:

- flaming [a written form of verbal aggression]
- cyber-stalking
- visual aggression [dissemination of harmful visual material]
- disruption of online activities [impersonating another; restricting access]
- flooding [sending many lines of text repeatedly so the victim's screen is flooded with text]
- spamming
- ignoring or excluding others (Willard, 2007).

But the question needs to be asked: are these, or when do they become, cyberbullying behaviours? In order to determine this, the issues of power differentials and repetition need to be considered carefully.

Attention needs to be paid to some international studies, which are leaning towards the frequency of “once or more often” as determining involvement in cyberbullying (See Menesini et al. 2013). Care must also be taken in assuming that one-off incidents are *not* cyberbullying, given the availability of a wider audience and the 24/7 nature of it to inflict harm once it has been enacted. The contrary argument however, is put forward by Bauman, Underwood and Card (2012 p 43):

that most adolescents use text messaging and Facebook daily, so sending nasty texts messages or making mean comments on Facebook, may be the most frequent forms of cyber-aggression: that is, a deliberate intent to harm, but without necessarily including the notions of repetition or power differentials required for cyberbullying.

Indeed, Salmivalli et al. (2013) suggest that electronic bullying is actually quite rare and not as prevalent as we think. Citing findings from their large (17,000 participants), longitudinal national study in Finland, which employed stringent criteria, the same as for determining bullying prevalence (in the last couple of months), they could only identify 0.5 per cent (n=94) of the sample who were targeted by electronic, but not traditional bullying (p 450).

The caveat to that is that they reported that most victims of cyberbullying were *also harassed by traditional means* as well, finding slightly higher prevalence estimates for these forms. Smith et al. (2013) report that a large overlap between involvement in traditional and cyberbullying is well established in the literature, regardless of whether a bully or victim. However, the cultural context also needs to be considered, and that these data come from a large, ongoing national anti-bullying intervention in Finnish Schools (the KiVa Anti-bullying program).

On the other hand, a narrow definition of cyberbullying which only includes actions repeated over time with intent to harm the victim, would result in much smaller prevalence rates. Indeed, Salmivalli et al. (2013) argue just that: that based on stringent criteria which applies to both traditional and cyberbullying (e.g. *taking place two or three times a month or more often*): electronic bullying is rare, with only 2-3 per cent of students reporting being cyber-targets.

Separating prevalence of face-to-face bullying from cyberbullying is also made difficult due to the positive associations which have been found between face-to-face and cyberbullying, in terms of bullying and being bullied (Sourander et al., 2010).

For example: the Joint Select Committee on Cyber-Safety report found that of those who reported they had cyberbullied others, 66 per cent had also been the victim of cyberbullying (p 82, 3.58, Table 3.2). This suggests that it is difficult, if not

impossible, to place those involved in cyberbullying entirely within the role of either the bully or the victim.

Olweus (2013, p 767), the leading researcher who started the research into bullying in the 1970's, has weighed in to the debate stating:

to be cyberbullied or to cyberbully others seems to a large extent to be part of a general pattern of bullying, where the use of electronic media is only one possible form.

A specific incident may also be very difficult to access/define because bullying generally takes place over time and is a repetitive process occurring in the context of individual and peer relationships. In the case of cyberbullying however, this takes place in the context of online social relationships with individuals, peers and strangers.

Similar to traditional bullying, even when the definition is agreed, the way the question is asked in a survey can yield different findings, and therefore prevalence:

Some measure it using a simple, global question, e.g. 'have you been cyberbullied?'; others use a definition, i.e. 'we say bullying is...'; whilst others employ a list of behavioural experiences, e.g. 'Has anyone sent you a text message which you found frightening or threatening?', or a combination of these. Those who respond to actual behaviours, reveal higher levels of victimisation than those who have been asked a global question (see Shaw, Dooley, Cross, Zubrick, & Waters, 2013; Ybarra, Boyd, Korcmaros, & Oppenheim, 2012).

Some researchers have also employed cartoons to represent bullying and cyberbullying for younger ages (Joint Select Committee on Cyber-Safety 2011). This too has implications for determining prevalence, as developmentally different age groups require different approaches in order to tease out the experiences and their understanding of it. Accessing very young children's experiences, for example, is problematic as they tend to collapse all behaviours together (Smith et al., 2002), suggesting much higher levels than there might really be.

The cut-off points for establishing groups and sub-groups are also critical to prevalence. Olweus (1999) asked about bullying in relation to the 'last couple of months' followed by a series of choices as to frequency: *not been bullied; only happened once or twice; two or three times per month; about once a week; several times a week*. The cut-off point has usually been *2–3 times a month*, as this indicates repetition and the bullying being ongoing over time.

In cyberbullying research however, there appears to be a shift towards a lower cut-off point: *it has happened once or twice* (See Frisén et al., 2013). This is due to how the notion of repetition plays out online: something could be uploaded, and then ongoing comments and 'likes' contribute to the spread of the bullying across a wider

audience. This has particular ramifications for determining prevalence, as this is a much “looser” criterion than 2 or 3 times a month.

The time reference period is a key issue in determining prevalence: e.g. last month, last term, last year, ever at school (Monks et al., 2009), and this critically hinders cross-study and cross-cultural comparisons. Solberg and Olweus (2003: p 243) consider that:

...every couple of months is a reasonable ‘memory unit’ for students to recall traditional bullying, but no consensus has been arrived at, with regard to cyberbullying.

Frisén et al. (2013), from their systematic literature review of cyberbullying instruments and measures, established that almost half of the instruments used to measure cyberbullying ‘*did not actually use the concept of cyberbullying*’ (p 44); rather they measured related constructs such as internet harassment. This raises issues for comparison of prevalence internationally. They reported the prevalence estimates of cyberbullying from their systematic literature review and some are reported in Table 1 for comparison and evidence from the international field. Immediately, the variations across cut-off and reference timeframe are obvious: and the prevalence estimates reflect this.

The recent advent of sexting is also a challenge to determining prevalence as sexual bullying has not been articulated as a prevalence figure. For example, the studies all use established definitions of bullying, but rarely do the questions make explicit whether they are including sexually-charged cyberbullying as *cyberbullying*, or whether it is placed under the topic of *sexting/inappropriate material*.

Sexting of itself is *not* cyberbullying, but when consensual images shared under the context of a private relationship are used to publically humiliate, denigrate reputations, with clear intent to harm, then cyberbullying may be said to have occurred.

It will be important to examine the prevalence of *sexting* in this broader continuum of sexual bullying and sexual cyberbullying, particularly where the law and legal consequences are involved.

In conclusion, determining prevalence of cyberbullying is thus challenged by the discrepancies in:

- definition
- cut-off points for bullies and victims
- different time/reference periods
- whether the questions relate to a set of behaviours or a global question
- the actual methodologies employed (e.g. cartoons or not for younger children)
- the recognised overlap between traditional and cyberbullying

- the anonymity of the bully, and the availability of the victim 24/7
- whether the cyberbullying behaviour is overt or covert, direct or indirect
- cyber-aggression (intent to harm only) and cyberbullying (power and repetition as well as intent)
- the inclusion of sexual cyberbullying in the definition.

While it is important to maintain as open and inclusive a definition of bullying and cyberbullying as possible, this may occasionally cause problems when trying to tease out related areas.

Table 1 Comparison of prevalence rates by cut off and reference period

Authors	Cut off	Reference period	Prevalence %
Ang & Goh (2010)	Infrequent: at least once or twice	Current school year	Infrequent CB males: 19.9 Infrequent CB females: 14.2 Frequent CB males: 3.7 Frequent CB females: 0.9
Hinduja & Patchin (2007; 2008; 2010)	At least one experience with the behaviour	Ever (2007; 2008)	2007: CV male 32.5; CV female 36.3 2008 CB male 18 CB female 15.6 CV male 32.7 CV female 36.4
Patchin & Hinduja (2006)		Previous 30 days (2006; 2010)	CB : 9.1 to 23.1 CV : 9.1 to 23.1 Witness: 47.1
Li (2005, 2006, 2007a, 2007b, 2008)	At least one CB experience		CB ranged 14.5–17.8 CV ranged 24.9–28.9 Witness 56.8
Menesini et al. (2011)	Only once or twice 2–3 times a month Once week Several times week	Past 2 months	CB 14 (only once or twice) CB 2 (2–3 times month) CB 0 (once a week) CB 1 (several times a week)
Mishna et al. (2010)	At least once or twice	Past 3 months	CB 33.7 CV 49.5
Smith et al. (2008)	2005: at least once or twice	Past 2 or 3 months	CV 15.6 (only once or twice) CV 6.6 (often)

Source: Frisé et al., 2013

Notes: CB – cyberbullying, CV – cyberbullying victim

3 Prevalence and nature of cyberbullying

3.1 Prevalence of cyberbullying from key Australian studies

Each of the major studies identified below surveyed young people about their own experiences with cyberbullying:

- The Australian Covert Bullying Prevalence Study (ACBPS) (2009)
- Australian Research Council (Linkage) grant (2008-2010) (Unpublished Government Report): Cyberbullying: An evidence-based approach to the application and reform of law, policy and practice in schools
- The Joint Select Committee on Cyber-Safety: *High Wire Act: Cyber-Safety and the Young* (Joint Select Committee on Cyber-Safety, 2011)
- The Australian Kids Online Study (AUKOS): Risks and safety for Australian Children on the Internet (2011)
- The Australian Communications and Media Authority: Like, Post, Share: Young Australians' Experience of Social Media: Quantitative study (ACMA) (2013)
- Safe and Well Online study (2013)
- Young and Well Co-operative Research Centre: National Study (2013).

There is however, a difficulty in using these studies to synthesise an accurate picture of the prevalence of cyberbullying among young Australians because of the different way each study collected and organised its data; and how the definition of bullying and subsequently cyberbullying was operationalised for measurement.

Campbell et al. (2010) outlined the early reports of cyberbullying in Australia. The first mention of it in Australia was in the press in 2003, where an informal survey of 40 schools first mentioned cyberbullying behaviours. Fleming and Rickwood (2004) and Campbell (2005) were the first peer reviewed studies into the phenomenon. Campbell and Gardner (2005), in a study of 120 Year 8 students, found that over a quarter of the students knew someone who had been cyberbullied, 14 per cent reported being targeted in this way and 11 per cent indicated they had bullied using technology. Epstein et al. (2006) reported that almost 10 per cent of 2,027 twelve-year old students (12 per cent of girls) from Western Australia had been sent hurtful messages on the internet during the past school term.

Table 2 provides a summary comparison of these major Australian studies, highlighting the variation in data collection as outlined in Section 2: varying methods; definitions; reporting timeframes; and contexts. This is followed by a brief outline of each study.

Table 2 Summary of Australian cyberbullying prevalence studies

Summary	ACBPS	ARC	Joint Select Committee on Cyber-Safety 2011	AUKOS	ACMA	SWO	Young and Well CRC	GFK
Age range (years)	8-14	9-19	5-18	9-16	8-17	12-17	16-17	10-17
Victims:	6.6% 23% exposure to CB behaviours <i>once or more often</i>	15.9% (4.5% CV 1.5% C-BV 4.5% C&T V 5.4% C&T BV)	22%	13%	4% (8-9 yr olds) Up to 21% (14-15 yr olds)	25% victims 19% cyberbully victims	21.7% CATI 33.8% online	26%
Timeframe	This/prior term	This year (actual: previous 6 months)	In the last year	During the last 12 months	Have you ever been	In the previous term	Past 12 months	You or someone close – ever experienced
Frequency	Every few weeks+	None stated	None stated	None stated	None	Once or more often	Once or more often	
Global Definition Behavioural	Both	Defined	<12 Used a visual definition Listed behaviours (>13)	Both		Behaviours	Both	
Gender of Victims	More females	More Females	More females		More females	More females		More females

Notes:

ACBPS – Australian Covert Bullying Prevalence Study (see Section 3.1.1); ARC – Australian Research Council Cyberbullying and the Law Study (see Section 3.1.2); Joint Select Committee On Cyber-Safety 2011 – Joint Select Committee Study (see Section 3.1.3); AUKOS – Australian Kids Online Study (see Section 3.1.4); ACMA – Australian Communications and Media Authority (see Section 3.1.5); SWO – Safe and Well Online Study (see Section 3.1.6); YAW CRC – Young and Well National Survey (see Section 3.1.7); GFK – Youth Awareness of Cyberbullying as a Criminal Offence (see Section 3.1.8)

3.1.1 The Australian Covert Bullying Prevalence Study

This study was commissioned by the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR) and carried out by Edith Cowan University's Child Health Promotion Research Centre, with results published in May 2009 (Cross et al., 2009). It consisted of four separate sub-studies, conducted between 2002 and 2007; however, it is only the final quantitative study which collected data in 2007 which is discussed here. Using a stratified two-stage probability sample, this study provided cross-sectional national data collected from 7,418 students aged 8–14 years and 456 school staff across 106 government and non-government schools during 2007. Student reports of how often they were bullied and/or bullied others were measured using two items adapted from the Olweus Bully/Victim Questionnaire (Olweus, 1996) and the Rigby and Slee Peer Relations Questionnaire (Rigby, 1998).

A definition of bullying was provided: "*Bullying* is repeated behaviour which happens to *someone who finds it hard to stop it from happening*" (their emphasis; Ch. 5, p 169). Different forms of bullying were distinguished: "*Being bullied (in any way)* is defined as being bullied again and again by another student or group of students every few weeks or more often in the term". "*Being bullied covertly* is defined as being bullied again and again by another student or group of students, every few weeks or more often in the term, *in ways that can't easily be seen by others.*" Cartoon and written examples of face-to-face (overt) and covert bullying were presented, and one covert example mentioned: *Mean and nasty pictures or words posted/sent on the Internet or mobile phone*. Students were specifically asked: *THIS TERM, how often and where were you bullied AGAIN and AGAIN by someone sending you mean or nasty words over the Internet or mobile phone?* (their emphases, Ch 5. Appendix 1, p 326).

In addition, participants were asked: *THIS TERM (their emphasis), how often did you on your own or in a group, do these things to another student or students (cyberbully) or have these things happen to you (cyber victim)?* Response options (frequency) included: *this did not happen this term; once or twice this term; every few weeks this term; about once a week this term; most days this term.*

Participants' exposure to and engagement in cyberbullying was categorised in the following ways (Cross et al., 2011, p 81):

- exposure to cyberbullying behaviours
 - any 1 of the 8 behaviours (below) *once or more often*, in the *last term*:
 - sent threatening emails
 - sent nasty messages on the internet, e.g. through MSN
 - sent nasty text messages (SMS), or prank calls to their mobile phone

- someone used their screen name or password, pretending to be them, to hurt someone else
 - someone sent their private emails, messages, pictures or videos to others
 - mean or nasty comments or pictures were sent or posted about them to websites, e.g. MySpace, Facebook
 - mean or nasty messages or pictures were sent about them to other students' mobile phones, and/or
 - being deliberately ignored or left out of things over the Internet (Ch. 5, p170).
- being cyberbullied
 - being repeatedly cyberbullied every few weeks or more often in the preceding school term
 - perpetrating cyberbullying behaviours (as above)
 - perpetrating cyberbullying (as above).

The study reports prevalence of bullying (all forms: traditional, covert, cyber) by state, gender and age group (Table 5.9, p 184). Whilst the focus of this early study was on covert bullying rather than cyberbullying, it is important to note that young people indicated that covert bullying was an adult-conceived term, not typically used by young people, and this was similarly so for the term *cyberbullying*. This has implications for how participants may have responded to the investigation about cyberbullying behaviours at that time.

As the oldest of the studies selected for this report, its cyberbullying prevalence data must now be viewed with some caution given data were collected during 2007, and there has been rapid take-up by children and young people, families and schools of changing online and mobile technologies in the intervening years.

However, prevalence figures were obtained 'after weighting the data to account for sampling methods, and allow for inferences to be drawn regarding the Australian population' (p 84). This suggests that this is a best estimate, but is contextualised by the time it was undertaken.

As noted earlier, this study found that being bullied overtly and/or covertly (any form, including cyber) *every few weeks or more often, during the last school term* was a fairly common experience, affecting approximately one in four Year 4 to Year 9 Australian students (27 per cent).

In particular, Cross et al. (2009) reported that 6.2 per cent of young people across all year levels reported being cyberbullied *every few weeks or more often* (see Table 5.2, p 86, Cross et al., 2011). When explored by gender, more females (7.7 per cent) than males (5.2 per cent) reported being cyberbullied; by school

type/sector, more students from non-government schools (8.4 per cent) than government schools (5.7 per cent) reported being cyberbullied; and by region, more students from non-metropolitan schools (7.3 per cent) than metropolitan schools (6.4 per cent) reported being cyberbullied. When year level comparisons were made: students in Year 8 and 9 (7.7 per cent and 7.8 per cent respectively) reported the most cyberbullying.

However, 23 per cent reported being exposed to cyberbullying behaviours, once or more often in the previous term (p 85). Given the current debate over repetition, and the argument which is mounted by some (see Menesini et al., 2013) that once is enough in the online setting, this figure is possibly more suggestive of the actual prevalence estimate figure for young people (see Table 5.3, p 87, Cross et al., 2011), with the 6.2 per cent previously reported perhaps representing more severe cyberbullying.

When prevalence of being cyberbullied via behaviours was examined, the most prevalent behaviours reported were: *sent nasty messages on the Internet (MSN)* (10 per cent 'any form, including cyber': 3 per cent 'repeated'); *sent nasty text messages or prank calls to my mobile phones* (6.6 per cent 'any': 1.9 per cent 'repeated'); *using screen name/passwords pretending to be me* (6.4 per cent 'any': 1.6 per cent 'repeated') and *had mean or nasty comments or pictures posted on websites about me* (5.8 per cent 'any': 1.4 per cent 'repeated').

These findings (6 per cent reporting being cyberbullied *every few weeks or more often*) reflected what was also found internationally at the time: over comparable time periods, among similar age groups.

Overall exposure to cyberbullying behaviours however (23 per cent) was not examined in this same way, and *perhaps reflects the higher prevalence rates reported elsewhere*.

Limitations need to be noted: and that in spite of this being a representative study, it was cross-sectional, and thus no causal relationships can be concluded. Self-report surveys may also have either over or under-represented the measuring of cyberbullying. The cyberbullying behaviours noted also represent the emphases at that time.

It would be expected that in 2013/2014, image-based bullying and sexual-based bullying over social networking sites would be more prevalent. This will be discussed in relation to the Safe and Well Online and the Young and Well CRC studies.

3.1.2 Australian Research Council (Linkage) Grant (2008–2010) Cyberbullying: An evidence-based approach to the application and reform of law, policy and practice in schools (Study 1)

This study collected data in 2009. A second Linkage Grant (2011–2014) *Cyberbullying: an evidence-based approach to the application and reform of law, policy and practice in schools (Study 2)* is in progress but has not reported as yet.

Data from Study 1 came from a large-scale (cross-sectional) school-based survey of 3,112 students' bullying experiences. Participants included students from grades 6-12 (1,572 girls, 50.5 per cent, and 1,535 boys, 49.3 per cent; five missing data) from 29 different schools, both government and non-government, in three Australian states: Queensland, New South Wales and Victoria. Participants were aged from 9 to 19 years ($M = 13.96$) with 44.6 per cent (1,389) attending a private school and 55.4 per cent (1,723) a public school. Participation was voluntary, and schools self-selected to participate. Most students were able to access the Internet from their home (87.5 per cent) and owned their own mobile phone (83.1 per cent) (Campbell et al., 2012; 2013).

The self-report surveys were administered to students during class time by a research assistant, and standardised instructions were read out loud to participants prior to survey administration. The survey was conducted between August and September 2009 (Term 3), when students had spent the previous 6–7 months of the school year together. In the student survey (Study 1), participants responded to questions about demographic information, their use of technology, their cyberbullying experiences, their face-to-face bullying experiences and two mental health measures.

The following definition of cyberbullying was provided, following recommendations that definitions improve the validity of responses (Solberg & Olweus, 2003):

Cyberbullying is when one person or a group of people repeatedly try to hurt or embarrass another person, using their computer or mobile phone, to use power over them. With cyberbullying, the person bullying usually has some advantage over the person targeted, and it is done on purpose to hurt them, not like an accident or when friends tease each other (Campbell, Spears, Slee, Butler, & Kift, 2012).

A global dichotomous question of '*Have you been bullied/cyberbullied this year? (since January/previous 6 months)*' was used, and a question '*Have you bullied/cyberbullied someone this year*' to establish cyber/bullies and cyber/bully-victims (Campbell et al., 2012; 2013). No frequency questions were included. Table 3 shows the different groups and the proportion of young people who fell into each group. The table shows that of those who are involved in bullying, victims of traditional bullying still form the largest category.

Table 3 Traditional and cyber victimisation and bullying prevalence

Type of victimisation	%	n
Traditional victims only	16.1	500
Cyber victims only	4.5	139
Both cyber and traditional victims	4.5	140
Traditional bully–victims	4.7	147
Cyberbully–victims	1.5	48
Both cyber and traditional bully–victims	5.4	169
Not involved	58.3	1813

Source: Campbell et al, 2012³

In all, 15.9 per cent of participants reported they had been victims of cyberbullying, either in isolation, or in combination with face-to-face bullying. These findings highlight the complexity of determining levels of cyberbullying, as it is now important to identify the various combinations of online and offline bullying, and this has implications for accurately determining the prevalence of cyberbullying.

As no frequency of occurrence was given, it is difficult to know the intensity of the cyberbullying in the time leading up to victims reporting it. In the absence of any information, it could be assumed that it was taken to mean at least once or more often, but it could easily have been once only. Either way, when the notion of repetition in the online setting is taken into account, this prevalence figure represents a conservative estimate. The importance of this study relates to the identification of the sub-groups of victims associated with cyberbullying, how that sheds light on previous estimates, as well as highlighting the cross-over between bullying and cyberbullying practices.

3.1.3 The Joint Select Committee on Cyber-Safety (2011) *High-wire act: Cybersafety and the Young* (Interim Report)

The study by the Joint Select Committee on Cyber-Safety (2011) involved a mixed methods online survey of young people's opinions and experiences of cyber-safety, cyberbullying and their strategies to mitigate online dangers.

The survey targeted children and young people aged from 5 to 18 years. The survey involved 33,751 self-selected participants of which 53.2 per cent were female and 46.8 per cent were male. This is the largest Australian study reviewed, but is not representative. Findings were therefore intended to be descriptive, and were not intended to be extrapolated to the general youth population.

³ Percentages add to 95 per cent as in the original table in Campbell et al (2012) p393

Most (80.7 per cent) of the respondents were aged 10–15 years old. The Joint Select Committee on Cyber-Safety 2011 study was advertised widely online and through school settings and was predominantly undertaken by students in schools across Australia, thereby ensuring that even children and young people who did not have access to online and mobile technologies in their personal lives could complete the survey.

The question was posed as:

Cyberbullying is when these things happen AGAIN AND AGAIN to someone who finds it hard to stop it from happening (p 544)

This was accompanied by a graphic for children aged 12 and under (see Figure 1). Then children were asked:

In the last year, has someone cyber-bullied you? (Yes/No)

Figure 1 Joint Select Committee on Cyber-Safety 2011 study graphic definitions



In the survey for children aged 13 years and older, cyberbullying was not defined, rather, a series of questions were posed relating to behaviours (pp 551–552):

Of the following activities, what do you think is cyberbullying?

- Posting or sending embarrassing photos of someone else
- Teasing someone in:
 - emails
 - chat rooms
 - discussion groups
 - online social networking sites
 - instant messaging services
 - Spreading rumours online
 - Sending unwanted SMS or emails
 - Sending hurtful SMS or emails
 - Creating fake profiles or websites

- Are there any other things that are cyberbullying.

This study only contains data on age and gender and, unlike the ACPBS (p 87, fig 3.3) it is not reported by State. However it canvasses a wider range of ages than the ACBPS.

Young people aged from 13 to 18 years were asked if they had been directly involved in cyberbullying in the last 12 months (see Table 3.1, p 81). Of the total respondents (n=15,592), 1,379 (8.8 per cent) reported bullying someone else via technology in the last year (p 81). More females than males at each age reported being directly involved in cyberbullying others in the last year (See Fig 3.1 Joint Select Committee on Cyber-Safety, 2011, p 82).

Of those who reported they had been directly involved in cyberbullying another person (8.8 per cent, n=1,379), two-thirds (66 per cent, n=910) reported they had *also been the victim of bullying online* highlighting the need to recognise the sub-groups of cyber bully-victims.

In response to the question: *In the last twelve months have you been the victim of cyberbullying*: Twenty two per cent (n=303) reported being victimised, and most of those were also female (see Figure 3.3, p 87).

3.1.4 The Australian Kids Online Study

This study was the Australian parallel of the EU Kids Online project (Green et al., 2011). The survey entailed a random, stratified sample of 400, 9–16 year olds who use the internet, and one of their parents/caregivers was interviewed between November 2010 and February 2011. The survey was conducted as a face-to-face interview in the children's own homes, first with the parent and then with the child. Then a self-completion section for sensitive questions was provided to avoid the requirement for the child to verbalise their response, and to alleviate the risk of them being heard by parents, family members or the interviewer (p 13).

The survey was conducted in parallel with a 25 country survey carried out by *EU Kids Online* and funded by the EC's Safer Internet Programme. The questionnaire was designed by the *EU Kids Online* network coordinated by the London School of Economics and Political Science. Ipsos MORI and its international affiliates conducted the research in all 26 countries (p 7). The focus was on opportunities and risks posed by use of the internet.

Findings relevant to this review relate to use of the internet as compared with other countries.

Compared to the 25 European country average:

- More Australian children went online at school (96 per cent vs. 63 per cent for the EU), at home (96 per cent vs. 87 per cent) and when 'out and about' (31 per cent vs. 9 per cent).
- Twenty-two per cent of Australian children were a little under eight years old when they first used the internet putting them amongst the youngest first-time-users in the 26 country study.
- The average time spent online by Australian 9–16 year olds per day was 99 minutes - higher than the 25 European country average (88 minutes).
- Two-thirds (65 per cent) of Australian children who use the internet had their own Social Networking Site (SNS) profile, a little more than the 25 European country average of 59 per cent.
- Only 29 per cent of Australian 9–10 year olds, but 59 per cent of 11–12 year olds, had an SNS profile, suggesting that it is the start of secondary school, rather than the minimum age set by popular SNS providers, that triggers social networking activity.

These findings suggest that Australian children spend more time on the internet than those in European countries, and therefore have greater opportunity to be involved in both positive and negative online behaviours, and that international comparisons of cyberbullying prevalence would need to take into account this higher level of online activity and the early onset of online involvement.

Bullying in this study was defined as:

Sometimes children or teenagers say or do hurtful or nasty things to someone and this can often be quite a few times on different days over a period of time, for example. This can include: teasing someone in a way this person does not like; hitting, kicking or pushing someone around; leaving someone out of things' (p 31).

Children were then also asked about their experiences of online behaviours: '*At any time during the last 12 months, have you been treated in a hurtful or nasty way*'; and '*At any time during the last 12 months has this happened on the internet, e.g. (set of behaviours)*':

- Nasty or hurtful messages were sent to me
- Nasty or hurtful messages about me were passed around or posted where others could see
- Other nasty or hurtful things on the internet
- I was threatened on the internet
- I was left out or excluded from a group or activity on the internet.'

In relation to online bullying, the AU Kids Online study reported:

- 29 per cent of Australian children (19 per cent across Europe) said they had been bullied and 13 per cent said this occurred on the internet. This was more than double the average for the 25 European countries (6 per cent).
- The most common form of bullying was nasty or hurtful messages sent to the child (7 per cent), followed by messages being posted or passed on (4 per cent); other nasty things online (3 per cent) and having been threatened online (3 per cent).

- 17 per cent of Australian children said they had bullied others, though only 5 per cent said they have bullied others online in the past 12 months.

3.1.5 The Australian Communications and Media Authority (ACMA) Like, Post, Share: Young Australians experiences of social media (quantitative) study (2013)

This study contained online survey and interview responses from 1,511 young people aged 8–17 years, with 604 in the 8–11 years age group and 907 in the 12-17 age range. A key focus of this research, conducted by an independent market and social research consultant, was to measure trends in relation to some of the main findings from the 2009 survey: *Click and Connect* (p 16).

The sample was sourced from the *Research Now Valued Opinions* consumer panel, with a response rate of 10 per cent of the overall email invitations sent out. The sample design included 'interlocking sample quotas of gender within age to ensure the sample included relatively equal numbers of boys and girls within the children's (aged eight to 11: 301 males; 303 females) and younger persons' (aged 12–17 years; 454 males; 453 females) surveys. Quotas were also set by geographical location, with all quotas based on the Australian Bureau of Statistics (ABS) Estimated Resident Population at June 2011 (projected from 2006 census data) released on 19 Dec 2011' (p 16).

It is important to note that with the increasing difficulty in recruiting participants generally, consumer panels are now being employed more regularly in online research, but more needs to be known concerning their efficacy to deliver results comparable to offline surveys and computer-assisted telephone interviews (CATI).

The research included an introductory survey for parents, followed by a self-completion online survey of one of their randomly selected children aged from eight to 17 years. There were separate survey scripts for children (8–11 year olds), young people (12–17 year olds) and parents, with the type of language and question complexity tailored to the abilities and maturity of each of these groups (p 6).

Children were asked: *Have you ever been cyber-bullied?* And were told that Cyberbullying was:

When someone repeatedly uses the internet or a mobile phone to deliberately upset or embarrass somebody else. It is intended to harm others and can include sending mean or nasty words or pictures to someone over the internet or by mobile phone. (p 77)

Response options were: *Yes, No, Don't Know;* and *Prefer Not to Say*, with a follow-up question asking: *did this occur in the last year?* (Yes/No/Don't Know). No frequency was provided.

Despite the methodological limitations of this study, it has the advantage of being able to compare findings on prevalence between the 2009 survey (7-10 per cent), and the 2013 survey (4-21 per cent).

Those who reported ever being a victim of cyberbullying ranged from 4 per cent of 8–9 year olds up to 21 per cent of 14–15 year olds. There appeared to be a slight decline in cyberbullying for the 16–17 year olds (16 per cent) though this was not statistically significant. For the majority of respondents, the cyberbullying had taken place in the last year – particularly for the younger children (8–13 year olds).

There were some demographic differences evident amongst the 12–17 year olds:

- Females were more likely than males to report that they had been cyberbullied (21 per cent versus 14 per cent respectively)
- Teenagers from higher income households (\$100K+) were less likely than others to have been cyberbullied, and
- Teenagers from English speaking households were more likely to say they have been cyberbullied than those from non-English speaking households (18 per cent versus four per cent respectively) with the latter more likely to say they don't know if they have been (8 per cent).

This latter result is perhaps an indication of the cultural differences in terms of understanding the concept of bullying. This was also mentioned in the AU/EU Kids online study (p 31):

[While] 'bullying' is an accepted term in some countries and languages, it is not a recognised pattern of behaviours in others, which makes the term difficult to translate.

Comparisons with previous data collected in 2009, showed that despite the significant increase in the role of the internet in young people's social lives, there was *no change since 2009 in the proportion of 10–17 year olds who reported they had been cyberbullied* (see Table 19, p 78).

However there had been a *significant increase in the proportion of 8-9 year olds who now report being cyberbullied* (from 1 per cent in 2009 to 4 per cent in 2012).

When asked if they themselves had ever cyberbullied someone else, the likelihood of saying yes generally increased with age. While only 1 per cent of 8–9 year olds report having cyberbullied someone else, this rose to 12 per cent among 14–15 year olds. The majority of those aged 10–17 years who reported that they cyberbullied someone, did this in the last year (p 81). Comparing the 2009 and 2012 results, there were no significant differences in the proportion of bullies among any of the age groups.

This is important, as it is often argued that the rapid uptake in technology accounts for the rise in cyberbullying. Clearly, the rise is related to age and access, not the

technology itself, supporting the view that targeting bullying behaviours is important, not the technologies themselves.

The *Like, Post, Share* study is the only one to be able to adequately compare prevalence across two timeframes: 2009 and 2013. Whilst it does not address the issue of repetition, it does provide a benchmark: that up to 21 per cent of young people in Australia are currently being cyberbullied, and that this is similar to the majority of young people aged 10-17 years, four years prior.

3.1.6 The Safe and Well Online study

This is one of the lead studies for the Young and Well Cooperative Research Centre (<http://www.youngandwellcrc.org.au/research/safe-supportive/safe-and-well-online/>) and is producing a series of online campaigns, which are premised upon co-design and youth participation for the campaign message and creation and test-retest methodologies to assess reach and impact (Spears, Taddeo, & Karklins, 2013).

An online survey is administered each year to a convenience sample of young people aged 12–18 years, drawn voluntarily from various online research panel providers. A pilot in the first year of the research tested the survey design and methodology (random allocation to control and exposure groups in relation to the campaign within the survey).

In the second year, 2,328 young people (1,298 females: 56 per cent; 1,030 males; 44 per cent) participated in the online survey associated with the second campaign. Informed parental and student consent meant that only those minors who had parental approval could participate, precluding use of online sampling techniques such as use of social media.

Young people were asked about their attitudes and behaviours towards the concept of the campaign (i.e. respect online), their Internet use [based on the Young and Well National Survey which drew from the PEW Internet Studies and the EU/AU Kids Online studies] and health and wellbeing, including cyberbullying, social connectedness, help-seeking behaviours and mental health.

Using questions based on those of Smith et al. (2008), young people were asked the about the following online behaviours, rather than a global question concerning their involvement in cyberbullying.

In the previous term how often have you bullied or have you been bullied in the following ways?

- Via: Text; Pictures/videos; phone/text; email; chat; IM/MSN; Social networking sites; online gaming sites; blog; webpage.

With the following frequencies:

- Never, Only once or twice, every few weeks, about once a week, most days, every day.

Using cut-offs as determined from international studies, where a lower level of agreement characterises the criterion of repetition in cyberbullying (see Smith, Steffgen & Sittichai, 2013, p 4; Menesini et al., 2013, p 31; Frisé et al., 2013, p 40), *it has happened once or more* (Frisé et al., p 40, 2013); young people self-reported (n=1,934) for all online behaviours and were subsequently allocated to either of the following categories:

- *Not involved*: 52 per cent (n=1,000; 55 per cent female; 45 per cent male)
- *Cyber victim*: 25 per cent (n=535; 59 per cent female, 41 per cent male.)
- *Cyberbully*: 2 per cent (n=34; 51.5 per cent female, 48.5 per cent male)
- *Cyberbully and cyber victim*: 19 per cent (n=365; 52 per cent female, 48 per cent male.)

A total of 44 per cent of students were therefore classified as victims (including cyberbully/victims).

When age was examined, more 14 and 15 year olds than any other age were engaged in self-reported cyberbullying (29 per cent as opposed to 21 per cent for the whole cohort).

Young people in the Safe and Well Online study (n=2,338) reported being cyberbullied in the following ways, with social networking sites and texting being the most prevalent (Table 4.).

Table 4 Platform of cyberbullying, Safe and Well Online study

Form of cyberbullying	Once or more often %	Never %
Social Networking Sites	28.1	71.9
Texting	27.4	72.6
Chat sites	18.1	81.9
Instant messaging (MSN)	19.3	80.7
Pictures, webcams, clips	13.3	86.7
Phone calls	17.1	82.9
Email	13.9	86.1
Online gaming	10.1	89.7
Blog	7.3	92.7
Webpages	5.6	94.4
Twitter	7.0	93.0

Notes: n=2,338

When a higher cut-off is used (every few weeks or more often) fewer young people report being cyberbullied. For example, being cyberbullied via *Social networking*: every few weeks or more often reduces to: 10.2 per cent (n= 197).

What is evident is that when a set of behaviours is employed (rather than a global question about involvement in cyberbullying) and a lower level of agreement

regarding frequency (once or more often) are employed, *many more young people can be categorised as being cyberbullied.*

In this instance, as distinct from the participants in the ACPBS study, young people were *directly asked about being bullied, not being exposed* to these behaviours. Young people in the SWO study are clear that they have been cyberbullied in these ways.

Closer examination of the ACPBS age groups, finds that 24.1 per cent of Year 9 students (14-15 year olds); and 25.8 per cent of Year 8 students (13-14 year olds) reported exposure to cyberbullying behaviours, which is in line with the cyberbullying reported in the Safe and Well Online study. The timeframe is relevant here: in 2013, when the study data was collected, students knew more about cyberbullying (compared to when the exploratory ACPBS study was undertaken) and students knew that these behaviours comprised cyberbullying.

3.1.7 The Young and Well National Survey

This study aims to determine the impact of technology on young people's mental health and wellbeing. A cross-sectional CATI methodology was used to conduct a survey of 1,400 participants across Australia.

Participants were randomly selected using random digit dialling. Participants included 700 young men and 700 young women aged 16–25 years (note: existing protocols for telephone interviews with people aged below 18 years of age were used). Of these participants, 276 were under 18 years: 54.7 per cent (151) were male and 45.3 per cent (125) were female. The survey took 10–20 minutes to complete. Stratification ensured that the sample was representative of the normal population in terms of age, gender and geographic location across all Australian states by selecting respondents to match the then current Australian Bureau of Statistics records for age, gender and geographic location.

The survey included questions about general health and wellbeing, health perceptions of Australian youth, use of the internet, online and communication risks (such as digital abuse, cyberbullying and sexting), digital literacy and ICT safety skills for young people aged 16–25 years (see Burns et al., 2013).

In addition to the CATI survey, a similar survey was conducted online: 3,092 young people responded to the online survey of whom 1,892 were aged 16-17 years: 33.1 per cent were male and 66.9 per cent were female.

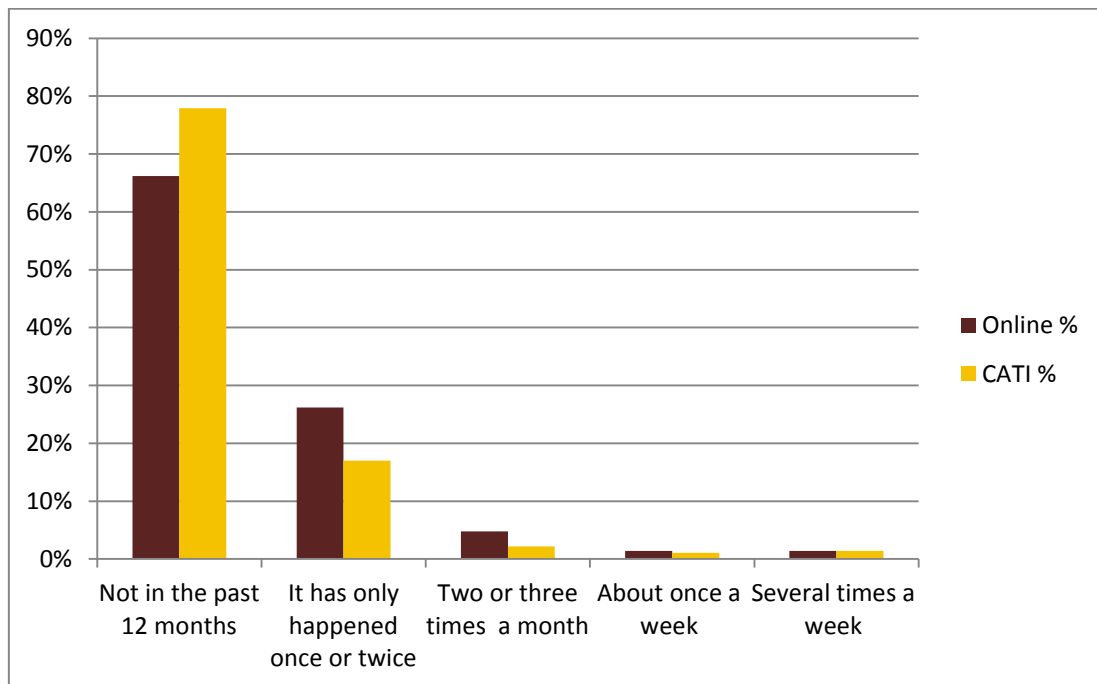
In the online survey, cyberbullying was defined as:

... bullying carried out on the INTERNET, through messages, chats or online posts, or on mobiles and smart phones. It includes things like teasing, spreading rumours, ignoring or excluding people, and sending or posting threatening or unpleasant comments and images about someone.

It is noted in this definition, that the key components of bullying are lacking: an act of aggression, with a deliberate intent to harm, repetition, and power differentials between the parties are not explicit. Teasing, for example, is questionable, as there is playful teasing, which is clearly not bullying.

In response to the question ‘*In the past 12 months, how often have YOU been cyber-bullied?*’, just over one-fifth (21.7 per cent, n=60) of CATI participants and just over one-third (33.8 per cent, n=333) of online survey participants aged 16 and 17 years reported that they had been cyberbullied *once or more often in the past 12 months*. Response options ranged from: *only once or twice; 2-3 times a week; about once a week; several times a week; don’t know*. Responses for these categories for the online and CATI surveys are provided in Figure 2, confirming very low proportions who report repeated instances.

Figure 2 Victims of cyberbullying in the YWCRC survey



Source: Authors calculation from data provided by YWCRC
 Notes: Participants aged 16-17

This reflects the higher response rates found in some international studies (Kowalski et al., 2014). However, of those who had been cyberbullied, the highest proportion were *only cyberbullied once or twice in the past 12 months*: 17 per cent (n=47) per cent in the CATI survey and 26.2 per cent (n=258) in the online survey (see Figure 2). This again highlights the complexity of determining prevalence from such variations across frequency and time period.

In terms of the cyberbullying behaviours experienced by 16-17 year olds, the following is noted for CATI (n=276) and online survey (n=1,892) samples respectively: Table 5 provides details of the platforms where victims reported cyberbullying took place.

Table 5 Cyberbullying victims: platform of occurrences

Platform	Online %	CATI %
SMS/MMS	4.3	25.0
Pictures, photos, videos	2.5	16.7
Phone calls	2.3	6.7
Email	1.2	8.3
Chatroom	1.1	6.7
Instant messaging	4.3	23.3
Social Networking Site	14.5	75.0
Gaming website	0.9	6.7

Source: Young and Well survey, CATI vs Online survey responses

Use of social networking sites for cyberbullying was the most prevalent behaviour regardless of how the data were collected. Of note however, is the large discrepancy between the two methods (CATI vs online survey), clearly demonstrating the impact that approaches to data collection can have on prevalence estimates.

Further to young people's self-reported experiences of cyberbullying:

- 55% (CATI) and 11.5% (online survey) reported that they had been sent nasty or hurtful messages (words, photos or clips)
- 46.7% (CATI) and 7.5% (online survey) had nasty or hurtful messages (words, photos, clips) about them distributed to others (where others could see).
- 23.3% (CATI) and 7.4% (online survey) were left out or excluded from an online activity
- 20% (CATI) and 4.8% (online survey) were threatened.

Responses by young people in this study to being cyberbullied are presented in Section 4: *Responses to Cyberbullying*.

3.1.8 Youth awareness of cyberbullying as a criminal offence (GfK Australia)

GfK conducted a series of focus groups and an online survey of a broadly representative sample of 10–17 year old young Australians in February–March 2014. A total of 1,019 young people participated in the quantitative survey.

The main focus of the survey was awareness of cyberbullying as a criminal offence and the penalties involved (see also Part C).

The survey also included a question on young people’s experience of cyberbullying:

Have you yourself, or anyone you know, like a close friend or family member, ever experienced cyberbullying?

Twenty-six per cent of young people said they had personally experienced or known others such as close friends or family who had experienced cyberbullying as indicated in Table 6 below. This was lower for 10–13 year olds (20 per cent) and increased with age (33 per cent for 14–15 year olds and 30 per cent for 16–17 year olds). While this data is broadly representative, this is perhaps the broadest and loosest of all questions if applied to measuring cyberbullying prevalence.

Table 6 Past experience with cyberbullying

Column	Total%	% 10–13 year olds	% 14–15 year olds	% 16–17 year olds	Male	Female	Exposed	Not exposed
Yes	26	20-	33+	30	23	29	100+	0-
No	62	69+	54-	55-	63	61	0-	83+
Not sure	12	11	13	14	14	11	0-	17+
<i>n</i>	1019	428	291	300	506	513	288	731

Note: Base: Children aged 10–17 years (n=1019). NB red figures are significantly below the average and blue are significantly above. Source GfK (2014).

The ACMA reported that 18 per cent (in 2009) and 21 per cent (in 2013) of 14-15 year olds reported being cyberbullied; with 19 per cent (in 2009) and 16 per cent (in 2013) of 16-17 year olds being cyberbullied. The caveat here however, is that GfK are also reporting on friends and family experiences, so this data is likely to be inflated, and disentangling this data is therefore problematic.

Those who had personally experienced or knew someone close to them who had experienced cyberbullying were also more likely to:

- have regular access or use of the internet (97 per cent if previously exposed to cyberbullying compared to 93 per cent)
- have their own mobile phone (81 per cent compared to 55 percent)
- have a personal or school email account (76 per cent compared to 54 per cent and 60 per cent compared to 44 per cent respectively)
- use social media sites such as YouTube (82 per cent compared to 75 per cent), Facebook (78 per cent compared to 55 per cent), Instagram (45 per cent compared to 28 per cent), Snapchat (36 per cent compared to 18 per cent) and Twitter (23 per cent compared to 14 per cent).

Interestingly there were no differences by sex, school type, family income or state.

3.2 Estimation of Prevalence of Cyberbullying

From the data described in Section 3.1, it can be extrapolated from all frequencies, timeframes, methodological approaches and definitions that the general prevalence figure for Australian minors experiencing cyberbullying *in a year* is approximately 20 per cent, with a range from 6 per cent (ACBPS) to 44 per cent (SWO).

This estimate appears to be consistent with the international literature. For example, Tokunaga (2010, p 279) found that:

The preponderance of evidence suggests that cyberbullying victimization is not limited to an insignificant proportion of children and teens. On average, approximately 20–40% of youths report being victimized by a cyberbully...
...Some studies restricted the timeframe... in which the cyberbullying could have occurred naturally attenuating the prevalence rates of victimization.

More recently Kowalski et al. (2014) in their meta-analysis, noted that in general, prevalence estimates for cyberbullying victimisation range between approximately 10 per cent and 40 per cent (p 36).

Salmivalli et al. (2013), however, suggest that the victims of ‘electronic’ bullying ‘were in most cases bullied in traditional ways as well, and that electronic victimization is rare, and is almost always accompanied by traditional victimization’ (p 442).

As such, care must be taken with interpretation and comparison, given the differences in timeframes/reference periods, cut-offs, type of questions, and age-groups and the period of data collection (2007–2013) in the Australian studies.

The lower ACBPS (2009) figure (6 per cent) reflects the cut-offs and the fact that it was conducted when cyberbullying was a relatively new phenomenon. When prevalence of exposure to cyberbullying behaviours was reported however, the prevalence was much higher at 23 per cent.

Young people in the SWO study some five years later reported having been bullied in similar ways and recorded a similar response (25 per cent).

Young people in the ACPBS also highlighted that they did not necessarily call the phenomenon “cyberbullying”. They made the point that this was an adult and media-driven term. Smith (2014), however, notes that the term has now been around for long enough that everyone knows it, and this is no longer an issue, as it was in early, exploratory studies.

Whilst the data from the ACBPS includes responses from children from Year 4 to Year 9, in not having data from 16-17 year olds, it is not possible to determine if the trend was upwards, or would have decreased as the participants were closer to adulthood. Data from the older age groups are however, provided by the Young and

Well CRC national study, as they only reported against 16-17 year olds. Also, the SWO study also had an age range of 12-17 years, along with the ACMA study and GfK study, so it is possible to examine this group in more detail.

The Joint Select Committee on Cyber-Safety (2011) report found substantial increases in the proportion of 15 year olds being cyberbullied when compared to 14 year olds. This was also the case with 17 year olds as compared to 16 year olds (fig 3.3, 87). Similarly, the ACMA report (2013) found a steady increase in the proportion of young people reporting that they had been cyberbullied as age increased, peaking with 21 per cent at 14–15 years, with only 16 per cent at 16–17 years (ACMA, Table 19, p 78).

It would seem that the peak age group for victims of cyberbullying is around 14-15 years (or the middle years of secondary schooling in Australia).

This is consistent with international studies (see Smith, 2014, Tokunaga, 2010; Kowalski et al., 2014), which argue that the greatest prevalence occurs in the first few years of secondary school. However it must be noted that developmental and platform variations are evident (p 40).

The prevalence figures in the Joint Select Committee on Cyber-Safety (2011) report also require some interpretation. Unlike the other studies, which surveyed students who were aged 8 years and above, the JCS research also surveyed 5, 6 and 7 year olds. These children had some of the highest reported rates of cyberbullying. Given that younger children tend to conflate aggression with bullying and think of it as “nasty things that happen to you” (see Monks & Smith, 2006), it is arguable that determining cyberbullying via a survey format for very young children is inappropriate. Children of this age require different methodological approaches. Monks and Smith (2006) reported on young children’s understanding of bullying using cartoons, and found that very young children tend to over-include behaviours, which extended to fighting and non-bullying behaviours (Smith & Levan, 1995).

Bearing in mind that their level of understanding is also somewhat compromised and their theory of mind and general cognition is still developing, this data should be treated with caution. It is wise to limit the use of the Joint Select Committee on Cyber-Safety (2011) report data to that which deals with children aged 8 years and above. If this is done, the prevalence rate for the Joint Select Committee on Cyber-Safety (2011) report becomes 9–19 per cent, or 14 per cent on average.

It is also not clear from the ACPBS study whether the teacher reading the question with them (ACPBS Ch 5, p 169) was sufficient to ensure understanding by that younger cohort. This is particularly pertinent for the Year 4 students, as the *same* survey instrument was used for both primary and secondary students.

Smith (2014) reports that little is known about very young children and when they start cyberbullying, and that providing a definition may not be appropriate for them

given their cognitive development. Instead, methodologies which enable *recall* and *recognition* may be more useful (p 22). *Recall* tasks are those which ask the participants to say what they think it is and give an example. Younger children were found to give broad adjectival descriptions for bullying: “It is being nasty” and indirect kinds of bullying were rarely mentioned. Instead, *recognition* tasks might be more useful with very young children: such as using cartoons or stick figures.

The Joint Select Committee enquiry into cyber–safety did use cartoons with children under the age of 12 in their study, lending weight to their findings for this age group (see above), however caution is urged.

Similarly, the ACPBS used cartoon illustrations throughout their explanation of bullying and cyberbullying. Taken together with the teacher then reading out the survey, and the use of recognition tasks, the data for Year 4 children may warrant closer examination. It still remains however, exploratory data primarily concerned with covert bullying, and was undertaken at a time when young children did not have access to digital media (tablets, smartphone) in the same way they do now. There is clearly a need to examine young children’s exposure to cyberbullying given their increasing online usage.

The prevalence figures put forth by the ACBPS are limited to responses about cyberbullying that occurred during ‘this’ school term (ACBPS, Chapter 5, Appendix 1, p 335). Whilst this is the preferred ‘memory unit’ (a couple of months, as advocated by Solberg and Olweus (2003)), it does not allow a response from young people who may have been at a different school prior to that and who perhaps experienced bullying there. Children and young people do leave schools when they have experienced bullying and presumably it is the same for cyberbullying, so it could be that a group of children who had experienced cyberbullying in other schooling contexts are not being captured through this timeframe.

The AU/KOS finding of 13 per cent being cyberbullied in the past year is reportedly double that of other European countries involved in the EU Kidsonline studies and may be an artefact of the higher internet use Australian children report in comparison. It does however, fit within the range of other studies reviewed, so is not an unusual finding.

SWO’s higher *combined* rate of 44 per cent (accounted as 25 per cent victims of cyberbullying only and those who identified as victims of cyberbullying (19 per cent)) in the past term, highlights the need to think about prevalence in terms of the sub-groups, or as reporting cyberbullying victims only. It also reflects the difference in rates achieved when different approaches are used, with different cut-offs for repetition, reporting on actual behaviours vs a global question, and a more restricted timeframe/ ‘memory unit’ (last term, as per Solberg & Olweus, (2003)), rather than in the last year. This rate of 25 per cent for victims of cyberbullying only is reflective of the higher rate achieved when actual behaviours are used, as distinct from a global question, and over a longer timeframe.

It also highlights that the sub-groups (cyber bully/victims), as previously reported by Campbell et al. (2012; 2013) (ARC study) are important and are often not taken account of. The cycling of roles across bully and victim, and on- and offline bullying, suggests that prevalence is perhaps going to be underestimated when the percentage of cyber victims *only* are used (4.5 per cent in ARC study). The interaction between timeframe, prevalence, type of questions and cut-offs is important, and demonstrates how any shift in one, creates difference in another.

It is evident from a consideration of the Australia studies reviewed in this document, and in light of what is understood internationally, that the prevalence estimate of approximately 20 per cent in a year is reasonable. There are however, difficulties in determining this across different studies, with different measurements, timeframes, cut-offs, reference periods, and different methodological approaches, and these caveats to this are noted throughout.

Census figures from June 2013 show that there were nearly 3 million children aged 8–17 years in Australia. Table 7 provides two estimates for the prevalence of cyberbullying: the first based on 20 per cent of the whole cohort and the second based on the best estimate of the prevalence for different age groups. The second estimate is around 100,000 lower, and is a more conservative estimate of the overall prevalence, but probably more accurate. However, both figures could still be a considerable under-estimation of the full extent of cyberbullying. They could also be over-estimations if the definition of bullying strictly adheres to the criterion of repetition over time. Such is the difficulty in determining the prevalence of cyberbullying.

Table 7 Estimated prevalence of cyberbullying, Australia 2013

Age	Population	Estimate A	Estimate B
8	285,589	57,118	5,712
9	280,664	56,133	5,613
10	277,660	55,532	13,883
11	276,750	55,350	69,188
12	280,614	56,123	70,154
13	281,348	56,270	70,337
14	282,125	56,425	70,531
15	282,795	56,559	70,699
16	287,410	57,482	43,112
17	290,739	58,148	43,611
Total/Estimate	2,825,694	565,140	462,840

Source: ABS 2013

Notes: Estimate A = 20% of each age group

Estimate B = 2% ages 8–9, 5% age 10, 25% ages 11–15, 15% ages 16–17.

3.2.1 Cyberbullying peaks

Despite the variations in age groups in the major prevalence studies, there are enough data available for some observations to be made. Given the limitations of the data, the most accurate description of prevalence by age can be gleaned for children aged 8–15 years.

Generally speaking, there appears to be a trend of increasing incidence of cyberbullying from the ages of 8 to 15, with the incidence reducing slightly and remaining stable for subsequent age groups.

However, the Young and Well CRC National Study (Burns et al. 2013) found a relatively high incidence of victims self-reporting in the 16-17 year age range (33.8 per cent for online participants and 21.7 per cent for CATI respondents). In terms of perpetrators, the online sample reported: 74 per cent never engaged in cyberbullying behaviour; 13.5 per cent reported they had not bullied anyone 'in the past 12 months'; 11 per cent indicated that they had bullied others once or twice; with very low figures for those cyberbullying more frequently (0.5 per cent two or three times a month; 0.4 per cent about once a week; and 0.6 per cent several times a week). The CATI sample was similar: 84 per cent reported never cyberbullying; 5.1 per cent had not engaged in the last 12 months; 7.2 per cent had only perpetrated once or twice; 1.1 per cent (2-3 times a month); and 0.7 per cent about once a week (See Figure 2).

These figures should be interpreted in the light of the caveats and criteria previously articulated.

If those who answered 'Only once or twice in the past 12 months' are excluded (according to the strict definition which would require 2-3 times a month as an indication of repetition), the figures fall to 7.6 per cent for online and 4.7 per cent for CATI participants, as indicated in Figure 2. It is likely that similar patterns would be found for other age groups if one-off cases were excluded from the analysis.

The peak age for being the victim of cyberbullying varies from study to study. The ACMA Quantitative (2013) study (Like, Post, Share) showed the highest instances of cyberbullying occurring at 14–15 years of age (Table 19, p 78), while the AU Kids Online study found that the peak ages were 11–12 and 15–16 years of age. The ACBPS data noted a steady increase in cyberbullying instances from Year 4 to Year 9 students (Table 5.9, p 184) but the lack of data relating to young people above Year 9 limits what it can usefully say about the prevalence of cyberbullying beyond this age.

Campbell et al. in the ARC study found no age differences for cyber victims-only, but some of the other sub-groups were age-related (Campbell et al., 2012; 2013).

The Joint Select Committee on Cyber-Safety (2011) study includes data on children aged 5–7 years, which shows a markedly higher degree of cyberbullying being reported in these age groups when compared to older children (Figure 3.3, p 87). However, it is impossible to comment on the reliability of this finding as there is no other study to compare it to, and the Joint Select Committee on Cyber-Safety (2011) report itself cautioned against extrapolating its data across a wider population (p 540).

In general, findings from surveys of this age group, especially online surveys, should be treated with the greatest of caution, and it is probably wise to discount these findings unless they are corroborated by further studies. See previous discussion about younger children.

Overall, the Australian studies reviewed in this document indicate that the prevalence of young people's involvement in cyberbullying increases with age, starting at low levels before the teenage years, increasing until mid-teen years, and then decreasing after ages 16 or 17. This is consistent with international literature (Dooley et al., 2009, p 75). The SWO study found that more 14 and 15 year olds were engaged in self-reported cyberbullying (21 per cent and 29 per cent respectively) than any other ages, consistent with the ACMA study. The Young and Well CRC study (sampling youth aged 16 and 17 years old), reported high levels of cyberbullying reaching towards one-third of young people in this study who responded online. However, the lack of sampling of other younger age groups in this study makes it impossible to determine how steep that increase might be over time. There was, however, a general trend for participation in cyberbullying to increase with age (Table 5.12, p 187).

Clearly, these developmental periods are fraught with difficulty for young people in terms of their online behaviours and prevalence of cyberbullying, and serve to highlight that many of Australia's young people are being impacted by this phenomenon at a time when they are developing their sense of self and identity. What is not part of the scope of this study is how young people are coping with cyberbullying, but some of this is addressed in Part C.

3.2.2 Witnessing cyberbullying

Many students witness traditional bullying (Smith, 2014) and can either assist the bully or reinforce the bullying (around 26 per cent), do nothing or be outside the situation (24 per cent), or assist and reinforce the victim (17 per cent) (see Salmivalli et al., 1996). This acknowledgement of participant roles changed the way bullying was considered at the time: from that of a dyadic interplay between bully and victim, to understanding that this was a peer dynamic and a social relationship issue. Defenders' actions, mostly towards the bully, involved verbal responses (mostly girls) and physical assertion (mostly boys), however, there was no gender difference for intervening (Hawkins et al., 2001).

Less is known about witnessing cyberbullying. Little evidence pertaining to this element of cyberbullying was available from the studies reviewed here, although studies do exist which can shed light on this phenomenon more broadly (e.g. Australian Human Rights Commission, 2012; Price et al., 2014; Wachs, 2012).

Data from the Joint Select Committee on Cyber-Safety (2011) report showed a tendency toward an increase with age of the prevalence of witnessing cyberbullying after about the age of 8. This was the case generally with the exception of a drop between the ages of 5 and 6 years old and a plateau around age 10 for both genders although caution must be exercised in relation to the findings from this younger age group. Females also recorded a slight drop in instances of witnessing cyberbullying between the ages of 15 and 16 years old and then again between the ages of 17 and 18 (despite an increase between the ages of 16 and 17 years).

The ACMA Quantitative study (Like, Post, Share, 2013) did not distinguish between male and female respondents except as an overview (see pp 107-108) and in this case, only reported findings from children aged 12–17 years. These two limitations make it less useful for identifying trends, although it broadly supports the proposition that witnessing cyberbullying incidents increases with age.

Smith (2014, p 82) draws attention however, to the variety of bystander roles and their complex interplay when cyberbullying is involved, suggesting three distinct roles: the bystander is actually with the perpetrator when the cyberbullying is enacted; the bystander is actually with the victim when the cyberbullying is received; or neither: the bystander may witness the attack when online themselves through visiting a website or social networking platform.

There is opportunity for further investigations to be undertaken in this area as it would seem to be an important factor in cyberbullying prevention, much as it is for traditional bullying.

3.2.3 Gender and cyberbullying

Tokunaga (2010, p 280) has reported that determining gender difference in cyberbullying is 'fraught with inconsistent findings'. Kowalski (2014, p 54) also noted the mixed reports on the role that gender plays in predicting either cyberbullying or victimisation: some found no link; some found that males were more likely to perpetrate; others found that females were more likely to be victims.

Data from studies that reported gender (see Table 2) show that *girls* were more likely to report to be the *victims* of cyberbullying than boys (Joint Select Committee on Cyber-Safety, Figure 3.3, p 87; ACMA, p 108; ACBPS, Table 5.12, p 187; AUKOS, Table 9, p 32; ARC, see Campbell et al., 2012). Information from the Kids Helpline also supports this claim (bullying fact sheet p 3).

This trend appears to occur across all age groups, with two exceptions. Firstly, boys and girls in Year 5 who responded to the ACBPS survey (see Table 5.2, Cross et al., 2012) reporting a 5.8 per cent prevalence among boys compared to 5.5 per cent prevalence among girls. However, in this instance the margin was not statistically significant. Secondly, boys in Year 7 at a secondary school reported being the victim of cyberbullying in greater numbers than girls in that demographic (8.3 per cent compared to 5.4 per cent). In total however, 5.0 per cent of males and 7.0 per cent of females who responded to the ACBPS said they had been the victims of cyberbullying every few weeks or more often.

When prevalence of exposure to cyberbullying behaviours was examined across age groups (ACPBS), consistently more girls (28.3 per cent) than boys (16.1 per cent) reported being victims of cyberbullying.

In the Joint Select Committee on Cyber-Safety (2011) study, female respondents reported being the targets of cyberbullying at higher rates than the male respondents across all age groups except for seven year olds, although again the margin was too small to be statistically significant.

By comparison, in the Young and Well CRC study, more females (26.4 per cent) had been cyberbullied in the past 12 months than males (17.8 per cent) (CATI), compared with the no differences found in the online study: Females (33.8 per cent); Males (34.0 per cent).

These findings were also echoed by the AUKOS, which found that 19 per cent of female respondents reported that they had been the victim of bullying over the internet in the past 12 months, while male respondents reported much lower rates (4 per cent for boys under 13 years, and 11 per cent for boys aged 13 years and over, Table 9, p 32)..

3.2.4 Who cyberbullies more – boys or girls?

Smith (2014) reports that gender differences in traditional bullying vary according to type of bullying: noting that most boys are more likely to be involved in more direct and physical forms of bullying, and girls are more likely to employ either more indirect, relational or verbal methods. How this translates to the cyber setting remains part of the complexity, and requires further investigation to determine prevalence. Given that much cyberbullying is relational, and that it can be both overt and covert (Spears et al., 2009), it suggests that more girls may be involved. However, there is conflicting evidence in the literature about the gender balance of different forms of cyberbullying behaviours.

Data from the ACPBS study revealed that in Australia at that time, *more males than females engaged in cyberbullying, at every year level except in Year 4*: thus, in contrast to being cyberbullied, females were *less likely* than boys to report cyberbullying others (Ch 5, p 187).

Campbell et al. (2012) however found that there were *no significant gender differences in those who reported cyberbullying* and face-to-face bullying others (Campbell, 2012, 2013). However, this was not the case for cyberbully-victims where more boys than girls identified as cyberbully-victims.

The Joint Select Committee on Cyber-Safety (2011) report also provided data (Table 3.1, p 81). In contrast to the two studies above, the data showed that the reported *rate of cyberbullying others was higher among females* than males at all ages, although the difference was negligible at the ages of 17–18.

The ACMA Quantitative (2013, p 108) study did not provide data on the gender of those who engaged in cyberbullying, but did summarise the following key findings from that study in relation to gender differences in the online setting:

Overall, the online world of male teenagers tends to differ to that of females - *males* use the internet differently (e.g. more gaming, less mobile phone internet access), they were less active social network users and they were less likely to have negative experiences online (e.g. *more likely to feel good about the internet, less likely to have seen things that bothered them, and less likely to have experienced negative consequences of social networking or cyberbullying*).

The other key difference between males and females is in their communication and information needs around online issues. *Male* teenagers were less likely to discuss online issues with others, *less likely to tell someone about being cyberbullied* and they were less likely to seek information on online safety. Their parents were also less likely to be concerned about their online safety (p 108).

Specifically, female 12-17 year olds (21 per cent) tended to be more likely than male 12-17 year olds to have been cyberbullied, and also more likely to have told their parents or a friend if they had been cyberbullied, but there was no specific data related to gender and those who target others online.

The AUKOS only provided data on the prevalence of engaging in bullying generally (including online and offline). This data showed a general trend for participation in bullying to increase with age, and a trend for males to be involved more than females, but as it included offline (or non-cyber) bullying - little useful cyberbullying specific conclusions can be drawn from this data.

The Safe and Well Online Study reported marginally more girls than boys as cyberbullies (51.5 per cent compared to 48.5 per cent) and cyberbully-victims (59 per cent compared to 41 per cent).

The Young and Well Study, reported more males (9.9 per cent) than females (8.0 per cent) had engaged in cyberbullying (as per the CATI sample) compared to the online survey data where more males (22.2 per cent) were cyberbullies than females (8.8 per cent).

Overall, the research in Australia leans towards more females being more likely to be victimised, but there is little convincing evidence as to which gender is more involved as perpetrators of cyberbullying.

Rather than definitively determining which gender is more likely to cyberbully, it may be more useful to consider the form and medium cyberbullying takes, as it is likely that males and females engage in different forms of cyberbullying (see ACMA, p 107 noted above). For example, when cyberbullying occurs in gaming versus social networking sites, who is bullying whom? When sexting turns coercive, who is likely to be more involved as the bully or victim?

Stakeholders in Part B indicated that males were more likely to engage in the more 'serious' forms of cyberbullying, whereas females engaged in less serious incidents.

3.2.5 Cyberbullying with sexual elements

Cyber-safety as a concept is broader than bullying because it includes protection from activities such as sexual grooming and the accessing of inappropriate information (see the BraveHearts submission to the Joint Select Committee on Cyber-Safety, 2011, p 3.23). However, the definition of bullying and cyberbullying in a number of studies is broad enough to *include* incidents of a sexual nature when this behaviour becomes coercive. Given the rise in sexting, including the sharing of images through texting or online through social media sites and other platforms, it is pertinent to consider this element in light of current legislation and young people's experiences.

A distinction must therefore be made between cyberbullying on one hand and online exposure to inappropriate material of a sexual nature on the other, although these may be very difficult to distinguish in reality.

It must be noted, that consensual sharing of images between parties in a relationship is not cyberbullying. Only when one party shares outside of the relationship, without permission, and where the intent is to denigrate reputation or humiliate and embarrass, can cyberbullying be said to be invoked. On the other hand, some cyber offences which involve sexual behaviour are not cyberbullying. These include, for example, grooming by adults/paedophiles, posting of images on paedophile websites, predatory stalking and serious blackmail. These are generally categorised as serious sexual offences and would normally involve adult perpetrators, and would not normally be considered or dealt with by authorities in the same way as cyberbullying.

It is impossible to say with any certainty however, what the level of under-reporting of *sexual* cyberbullying is, and a cursory review of current methodological practices in the area leaves this possibility open.

For instance, the Joint Select Committee on Cyber-Safety (2011) report did not provide respondents aged 13 years and above with a definition of cyberbullying, asking them instead which behaviours they thought constituted cyberbullying (Joint Select Committee On Cyber-Safety, 2011 Appendix D, pp 551–552). Although two of the potential answers for this question may have included sexual elements (*posting or sending embarrassing photos of someone else and the free text response*), this was not made explicit, and as a result, reporting incidents of a sexual nature as cyberbullying in this survey came down to the individual responses of the students.

On the other hand, in the survey directed at those *under* 12 years, the Joint Select Committee on Cyber-Safety (2011) *implicitly excluded* sexual material at all from its questions on cyberbullying. By defining cyberbullying as the repetition of behaviour from a closed list (teasing or threatening someone online, spreading rumours online or sending hurtful messages online), the survey ensured the prevalence of those specific behaviours was the *only* thing that was measured (Joint Select Committee on Cyber-Safety, 2011 Appendix D, pp 544–546).

The ACMA Quantitative (2013) survey defined cyberbullying in their questionnaire as:

When someone repeatedly uses the internet or a mobile phone to deliberately upset or embarrass somebody else. It is intended to harm others and can include sending mean or nasty words or pictures to someone over the internet or by mobile phone (AMCA Quant Report, p 77).

This is a definition which leaves open the possibility that *sexualised* cyberbullying may be included, but does not say so expressly. The questions in the questionnaire were also limited to whether the respondent had been the victim of, perpetrated, or witnessed cyberbullying according to this definition. The result is that the statistics for prevalence given in the ACMA Quantitative Study (2013) *may or may not include sexualised cyberbullying*, but, based on the information available, it is impossible to determine which.

Like the Joint Select Committee on Cyber-Safety (2011) survey for children aged 12 or under, the ACBPS gave respondents a list of behaviours and said that they were bullying if they happened *'again and again to someone who finds it hard to stop it from happening'* (Chapter 5 Appendix 1, p 326). The survey then asked students questions about being victims of bullying, participation and responses to bullying behaviour. The behaviour listed that is most relevant for our purposes is *'Mean and nasty pictures or words posted/sent on the Internet or mobile phone'* (Chapter 5, Appendix 1, p 326).

While it is unlikely that this description could be taken to include sexualised cyberbullying, it is not impossible and so once again we cannot be absolutely sure that the prevalence results for bullying by technology in the ACBPS include or exclude instances of sexualised cyberbullying.

The AUKOS gave a definition that included a non-exhaustive list of potential bullying behaviours. The definition stated:

[s]ometimes children or teenagers say or do hurtful or nasty things to someone and this can often be quite a few times on different days over a period of time, for example. This can include: teasing someone in a way this person does not like; hitting, kicking or pushing someone around; leaving someone out of things (AUKOS, p 31).

Once again, the phrase ‘saying or doing nasty things’ is wide enough to include sexualised cyberbullying but does not make explicit whether respondents should include it when answering questions about cyberbullying.

These issues are raised in terms of the scope of this study, and to suggest that there is a case to be made for investigating *sexualised* cyberbullying and young people, as distinct from sexting.

3.2.6 Prevalence and at-risk groups

The Australia studies reviewed in this document did not specifically investigate, bullying based on disability, bias, prejudice or identity, including sexual orientation (homophobic bullying), faith-based bullying and racism. Each of these can be employed as a pretext for bullying behaviours, and are used to a large extent to display intolerance of difference of minority groups in society generally.

The National Children’s and Youth Law Centre (NCYLC) engaged directly with over 1,000 young people through school-based consultations in 2012, leading to the *New Voices/New Laws* report. Most participants were in their mid-teens—10.6 per cent were 12-13 years old, 42.4 per cent were 14-15 years old and 39.6 per cent were 16-17 years old. 55.7 per cent were female, 32.6 per cent were male and 4 per cent identified as transgender (with 7.7 per cent reporting that they would rather not say). 11.6 per cent were Aboriginal or Torres Strait Islander. 11.4 per cent said that they or their parents were from a non-English speaking background, and 5 per cent had disabilities (p 7). The vast majority (96.4 per cent) of respondents came from NSW, though a handful of online respondents (n=28) were from other states and territories.

The *New Voices/New Laws* report (Tallon et al., 2012) highlighted an increased vulnerability to cyberbullying amongst certain groups. For example, the report noted that people from non-English speaking backgrounds were more likely than those from English speaking backgrounds to have been the victim of most forms of cyberbullying. The report showed victims of cyberbullying being 3–5 per cent more prevalent among people from a non-English speaking background where the act of cyberbullying involved being bothered through a mobile phone; being the subject of a hateful or offensive online post; or having an online account logged into without the owner’s permission (pp 30–31).

This increased vulnerability is even more apparent in the results dealing with people with a disability. These data showed that cyberbullying was more prevalent among people with a disability across all areas surveyed except being bothered on a mobile phone (pp 31–32).

However, the highest prevalence for cyberbullying relative to the total number of respondents is found in the Aboriginal and Torres Strait Islander group, which reported greater prevalence across all areas of cyberbullying surveyed. In this case it should be noted that while cyberbullying was more prevalent among Aboriginal and Torres Strait Islander people across a greater number of areas of cyberbullying, the increase in prevalence was much smaller than was found among the non-English speaking background and disability groups.

It should also be noted that the survey used by *New Voices/New Laws* asked respondents about their total experiences with cyberbullying, rather than experiences in the past year (AUKOS, ACMA and JCS) or the past term (ACBPS, SWO). The survey also increased the likelihood of positive responses by formatting questions and answers to include people that the respondents knew.

Cultural context is important to acknowledge, and it must be recognised that bullying is a predominantly Anglo/European word. Many countries do not have such a word, and this raises issues for new arrivals to Australia and for how we therefore determine prevalence (e.g. India does not have a specific word for bullying). As will be evident from Part C, countries in Europe have always had to consider how it approaches the notion of bullying due to this fact (see Menesini 2012).

In addition, social media abuse in Aboriginal communities has recently been raised as a significant issue (for example, see <http://nacchocommunique.com/2014/02/20/naccho-aboriginal-health-social-media-the-new-health-danger-in-aboriginal-communities/>) and this also raises much needed sensitivity concerning these communities and their relationships.

Homophobic cyberbullying was not identified in this report, and there is a clear need for more to be done in this area. Smith (2014, p 87) notes that some young LGBTI people may not be ready to disclose their sexual orientation, thus making it extremely difficult to determine prevalence of this type of cyberbullying.

Retrospective studies can be employed however, asking adults about their experiences when they were younger, and together with studies of young people who self-identify as LGBTI, Smith (2014) reports that levels of direct traditional bullying were as high as 65 per cent, with even higher levels (75 per cent) found in faith-based schools. Indeed, 10 per cent of all abusive language used by 14-15 year olds in a British study was of homophobic origin, and were used more often than racist pejoratives (p 88). Little is known about the cyberbullying of this vulnerable group, but based upon traditional bullying findings, LGBTI youth are likely to be at greater risk of bullying, especially young males.

3.2.7 Impact of cyberbullying

The impacts of cyberbullying do not appear to be an aspect of cyberbullying canvassed by the major studies in the area.

While the ACBPS did cover the impact of cyberbullying in terms of feelings of safety at, and connectedness to, school (pp 214–220), these results are not cyberbullying specific and so, while they may be informative, they cannot be used as evidence of the harm caused by cyberbullying. The BoysTown report of a project carried out in 2009 suggests that of those cyberbullied, at least 28 per cent had extreme emotional responses in the categories of fear, sadness, anger, frustration and embarrassment (BoysTown report, p 5).

Campbell et al. (ARC study 2012; 2013) reported on the mental health implications of cyberbullying for both those who cyberbully and those who are cyber victims. Campbell et al. (2013) examined Australian students who reported cyberbullying others in school Years 6 to 12 (students aged 10–19), their perceptions of their mental health, the harm they caused, and the impact their actions had on their victims.

Most students who cyberbullied did not think that their bullying was harsh or that they had an impact on their victims. They reported more social difficulties and higher scores on stress, depression and anxiety scales than those students who were not involved in any bullying. Similarly, Campbell et al. (2012) sought to compare victims' perceptions of the harshness and impact of bullying by traditional and cyber means. The major findings showed that although students who had been victimised by traditional bullying reported that they felt their bullying was harsher and crueller and had more impact on their lives than those students who had been cyberbullied, correlations to their mental health revealed that victims reported significantly more social difficulties, and higher levels of anxiety and depression than traditional victims.

These findings are in line with extensive international findings of the impact of cyberbullying on those involved (see Walker et al., 2012). van Geel, et al. (2014), in their meta-analysis, reported the following:

Peer victimization was found to be related to both suicidal ideation (odds ratio, 2.23 [95 per cent CI, 2.10–2.37]) and suicide attempts (2.55 [1.95–3.34]) among children and adolescents. Analyses indicated that these results were not attributable to publication bias. Results were not moderated by sex, age, or study quality. Cyberbullying was more strongly related to suicidal ideation compared with traditional bullying.

It is evident from this discussion of prevalence, that the findings are quite variable in terms of estimates of cyberbullying behaviour and victims of cyberbullying, and the associated gender differences and age-related trends.

4 Responses to cyberbullying

4.1 Responding to incidents: young people, families and teachers

McGuckin et al. (2013) and Perren et al. (2012) summarised the empirical evidence to date about successful responses to cyberbullying. They found that most studies in their systematic literature review reported that general prevention strategies such as: anti-bullying policies or cyber-safety strategies; the use of individual coping strategies such as seeking support, responding, and finding technical solutions; and both avoidant and emotion-focused responses, were all successful responses to cyberbullying.

Noting that cyberbullying is strongly associated with traditional bullying (see for example Cross et al., 2009), responses which intervene against traditional bullying at the whole-school level: through policies; social skills training or improvement in school climate; and teacher capacity building, are relevant to reducing risks associated with cyberbullying. Indeed, Salmivalli et al. (2013) recommended that it is important to continue to aim to reduce bullying in general as previous research which has focused on the mechanisms behind bullying overall have been found to reduce both forms of bullying (p 452). Lester et al. (2012) suggested that in order to reduce the clustering of cyberbullying behaviours with other problem behaviours, focusing interventions on traditional bullying may be warranted.

The cyber-safety/educative approach by parents and schools is also relevant here.

Once cyberbullying has occurred however, a different set of practical responses at the individual and peer level need to be considered such as: technical (e.g. blocking); dealing with the bully (retaliation, proactive responses or avoidance/ignoring); and asking others for help (Perren et al., 2012 p 285). Individual responses such as specific coping mechanisms on the part of the victim, will also require support from families and friends.

Perren et al. (2012) and McGuckin et al. (2013) reviewed the empirical database of successful responses and considered these in terms of:

- (a) *reducing the risks* by employing preventative strategies;
- (b) *combatting cyberbullying*, leading to stopping it; and
- (c) *buffering its negative impact* on victims (p 285).

Prevention strategies suggested from their systematic review of the literature were (p 286):

- To draw on experience from traditional bullying
- Awareness raising strategies targeting teachers, parents and students

- Adequate school policies which respond to, but also act to prevent cyberbullying:
 - Direct teaching of values education; empathy training; “netiquette” using real stories
 - Create an open line of communication between students and adults
 - Inclusion of social and curriculum programmes to be proactive about taking action against cyberbullying
 - Adult supervision of young children’s computing education and use of technology
 - Education of parents.

Coping strategies suggested were:

- Peer support/ peer intervention by student leaders through raising awareness, developing empathy and leadership skills, practices and behaviours which do not support cyberbullying
- Improved parenting supervision behaviour and engagement with children online.

Strategies for combatting cyberbullying and buffering the negative impact were:

- Reactions towards cyberbullies (retaliation, confronting)
- Technical (report abuse buttons; blocking the sender)
- Support from others (adults teachers, friends)
- Avoidant approaches (ignoring). (p 287)

Of these, retaliating was not deemed useful; blocking was found to be the most widely used (Price & Dalgleish, 2010) and was often in addition to other preventative strategies such as parental interventions (banning from web-sites and setting limits). Although many students recommended asking parents for help, there was an associated fear of parents removing the privilege of having a mobile phone or internet access (Perren et al., 2012, p 288) or of not understanding the situation. In contrast, many students believed that telling an adult would not only be ineffective, but could also exacerbate the situation. Seeking peer support however, was a common response.

Determining the efficacy or success of these responses however, has not been established to any degree.

Limited research has examined help seeking and coping behaviours in young people engaged in bullying, with less research available in relation to cyberbullying. The coping mechanisms adopted by young people involved in cyberbullying are not well understood, as coping has commonly been looked at in regards to how young people deal with a ‘stressful’ situation rather than a cyberbullying situation. It is also known that young people rarely seek help when they are bullied by traditional means but even less is known about their help seeking behaviours in relation to cyberbullying.

Sources of help seeking can be categorised as *informal help seeking* and *formal help seeking* (Rickwood et al., 2005). *Informal help seeking* includes those who seek help from informal sources such as friends and family, whilst *formal help seeking* are those who seek more formal, professional sources such as health professionals or teachers (Rickwood et al., 2005). Michelmore and Hindley (2012) state that young people are most likely to seek help from their peers, and then are more likely to seek help from their parents than from professionals.

Research also suggests that young people fear that the bullying will get worse, or they will become the victim themselves if they report witnessing a bullying incident (Murray, 2005). Furthermore, research has found that young people often feel that they need to deal with their problems on their own, and are reluctant to talk about them or to ask for help (Murray-Harvey et al., 2012).

Research by Riebel et al. (2009) suggests that young people used different forms of *emotion-focused coping* to deal with cyberbullying. This could be due to the notion that young people often view cyberbullying as something that they cannot change or control (Völlink et al., 2013) and feel that accepting the situation is the only way to cope with it.

The studies considered in this report, show that there are a wide variety of responses undertaken by those who are victims of cyberbullying and those who witness it.

Prominent responses included: *blocking the bully; changing a phone number or email address; retaliation; ignoring messages/emails; and telling an adult or friend*. Less common responses included *keeping or printing a copy of the messages/emails; and reporting the behaviour to the relevant website or service provider*. However, all these strategies place the responsibility on the individual, and this is a significant cognitive, emotional and social task if the victim feels helpless and unable to respond. What is lacking in terms of responses, is whether or not young people engage with authorities. This will be discussed in Part B, but is also pertinent here in terms of the actions which are taken once cyberbullying has happened.

The ACMA Quantitative (2013) survey provided a wide range of data on responses to cyberbullying, including the victim's response, the response of bystanders and the responses of others seen by bystanders. This survey revealed that telling someone was the most common response to being cyberbullied (occurring in 97 per cent of females and 79 per cent of males), followed by blocking the bully. Ignoring the cyberbullying was the third most common response. One has to ask how easy "ignoring" is as a strategy, when young people are so closely linked to their electronic devices for their social lives.

The JSC (2011) report established that telling an adult was the most common response among 8–11 year olds, but that this was rapidly replaced by ignoring the cyberbullying or blocking the bullying from the ages of 12 to 18 years.

The ACBPS (2009) provided a list of possible responses to bullying, but not cyberbullying specifically. Despite this, a number of their responses could *only* have referred to cyberbullying incidents: ignoring bullying messages online; keeping a printed record of nasty electronic messages; changing phone numbers; and blocking people/profiles on websites (p 208). The incorporation of these responses alongside responses to traditional bullying makes it impossible to deduce the most common responses to cyberbullying alone.

The AUKOS on the other hand did not ask for information on responses.

The SWO study explored help-seeking behaviours in relation to cyberbullying (n=2,338) (Spears et al., 2013). Nearly half indicated that they would not seek help from anyone (49 per cent).

Developmental trends were evident regardless of young people's experiences of cyberbullying: i.e. these help-seeking trends are similar for bullies, victims, bully/victims or those not involved: as young people got older, they were *less likely to seek help from* parents, other family members, teachers or other professionals at school; and *more likely to seek help from* boyfriends/girlfriends, phone helplines, online services from professional and non-professionals, and help-seeking apps. Worryingly, there was also an upward trend with age for those not seeking help from anyone.

Regardless of cyberbully/victims status, females were more likely to seek help from friends than males. Males were more likely to seek help from a teacher than females, and from a family member who was not their sibling or parent. There were no other gender differences found.

The Young and Well study (Online survey and CATI samples) outlined some responses to having been cyberbullied. The most common responses were telling a friend and blocking or ignoring the bully (as indicated in Table 8).

Table 8 Victims' responses to cyberbullying; Young and Well Study

Response	Online %	CATI %
Told:		
a friend	8.4	56.7
a sibling	1.4	16.7
parents	3.5	23.3
teacher	1.2	15.0
police	0.3	5.0
someone else	1.6	5.0
Other Responses:		
blocking the bully	7.3	50.0
reporting to a service provider/website	4.0	18.3
changing email/phone number	1.0	13.3
kept a record of the message	5.7	35.0
bullied back	2.0	16.7
ignored the bullies	11.4	78.3

Source: Young and Well survey

Another issue arising in terms of responses is that the surveys reviewed only asked about the most *immediate* response but did not ask what that person *actually did* about the cyberbullying. The ACBPS asked whether the bullying “got better” as a result of speaking to an adult, but not what actions the adult took. It is therefore difficult to draw conclusions about the effectiveness of different types of adult intervention.

The JSC study has similar limitations.

If a child who has been cyberbullied tells an adult (for instance a teacher) who arranges for mediation between the victim and the bully which is successful. Later the child is asked by a survey how they responded to being cyberbullied. The child is only given the option of saying that he or she told an adult (and who that adult was) *not what the outcome of that course of action was*. As a result, there is nothing in the data reflecting that mediation was a successful outcome in this case.

As mentioned above, where children told an adult about a cyberbullying incident, that adult was most likely a family member or a teacher. The Department of Communications surveys (IRIS 2010; 2011; 2012; 2013, 2014) allow some conclusions to be drawn about what happens after a child reports being cyberbullied to either a parent or a teacher and are described in Part B.

However, even the recent IRIS research does not indicate the outcomes of the actions taken by schools. This would require extrapolating from various datasets and there is no one source of information on how incidents progress from an adult being informed, the action being taken and the outcome of those actions. *This is a clear gap in the evidence base and requires more targeted research.*

Surveys of parents' awareness and responses to cyber-safety conducted by IRIS Research for the Department of Communication (2010, 2012) asked parents what action they took in response to being told about a cyber-safety incident involving their child.⁴ The responses included speaking to or educating the child, blocking the offending child, doing nothing, informing the school and contacting the parents of the offending child (Table 6.7, p 68). When compared to the results of the 2010 survey, the 2012 survey showed there had been an increase in parents responding to a cyber-safety incident by educating their child in favour of almost all other options (Table 6.7, p 68). The only other response to record an increase between 2010 and 2012 was banning the child from using the computer or mobile phone (5.5 to 6.6 per cent).

The IRIS teachers' survey (IRIS Research 2013) asked teachers who had been involved in handling a *cyber-security incident* how they had responded to it. There were no notable differences of teacher involvement between school levels or sectors evident. Because not all teachers surveyed had been directly involved in handling a cyber-security incident, the results in this area used a much smaller sample size (422 of 1,862 teachers surveyed or 22.7 per cent: pp 49–50).

Responses included informing and involving parents, counselling involving all parties, suspending the student's IT account and formal punishment in line with school policy. Of these responses, informing and involving parents was the most frequently used (46.6 per cent), followed by counselling with all parties involved (14.8 per cent) and then warnings or class discussions (9.6 per cent).

While these three responses were also the most common in the 2010 survey, it is worth noting a large increase in the involvement of parents (from 20.0 per cent in 2010 to 46.6 per cent in 2012) and a decrease across almost all other responses. Of interest is the increase of responses categorised as 'police involvement' (7.0 per cent in 2010 to 9.2 per cent in 2012). This police involvement includes a law enforcement response as well as an educational response (p 50). Unfortunately, there appears to be a lack of data either from police and education authorities on what the percentage of police involvement was in an educational capacity as opposed to a law enforcement capacity.

A more recent report by IRIS updating teacher response data is discussed in the Part B Report.

In terms of responses, Addington (2013) noted that most cyberbullying studies did not address whether victims reported their experiences. When they did, this was only generally asked about telling an adult close to them (parent, teacher, school official) and not the police or authorities, which is in contrast to what normally

⁴ Cyber-safety was defined more widely than cyberbullying and included accessing inappropriate websites, and strangers making contact asking for personal information.

happens with face-to-face bullying, where the police are an important aspect of reporting (p 456).

A USA study by McQuade and colleagues (2009), it was found that reports to an adult 'decreased from pre-teen to teens' and patterns of telling friends increased with age. Girls were found to be more willing to report to a peer, and boys were more likely than girls to tell a teacher (see also Hinduja & Patchin, 2009).

In the USA, Police however, are rarely notified by victims (Hinduja & Patchin, 2009) and adults also rarely call the police when victims inform them about it. Similarly, parents do not tend to report due to uncertainty of involving the police (McQuade et al., 2009, cited in Addington, 2013). School officials also have been found to be reluctant to report to police, possibly due to lack of clarity regarding the school's authority to intervene, particularly if the cyberbullying occurred outside of school or involve other students from different schools (p 457).

Addington noted that two roles for the police were evident: to employ existing criminal laws as 'mechanisms to pursue cyberbullying cases', and secondly, to serve as a 'clear authority to whom victims can report incidents and obtain necessary services and assistance' (p 457). Highlighting that, when traditional bullying occurs, teachers at school are a natural resource for student. When cyberbullying occurs however, there is no clear location, so a corresponding adult might well be an authority figure, such as the police, which could have additional support through larger policy initiatives.

Data sets from Addington's study in the USA revealed the following: victims tended to be aged 15, white, and female and over two-thirds (68 per cent) did not report their experiences to school officials, almost one-third were from households with the highest incomes, and 16 per cent of cyber victims reported being victimised at least once a week. Of those cases which come before the police, 28.5 per cent are resolved, and offenders tend to be male; the cyberbullying occurs between known offenders (specifically friends) and occurs at home (not school). Being female was the only significant predictor of reporting (p 464) and incident seriousness appeared to predict reporting (p 465). Incidents involving strangers were less likely to be resolved by police than those involving friends. Potentially this suggests that incidents involving males are perceived by the police as more serious, especially since most victims of cyberbullying are likely to be female (see 3.2.3).

Having an understanding of who reports to police, and under what circumstances, is relevant to this study particularly if the patterns are replicable in Australia.

Other legal responses are specifically discussed in Parts B and C of this research.

4.2 Systemic responses

There is a debate in the literature on the systemic responses to and prevention of cyberbullying as to whether cyberbullying should be addressed in a similar way to traditional bullying, or whether prevention of and responses to cyberbullying should differ because of the specific nature of cyberbullying.

General anti-bullying strategies stress the role of the school and advocate a whole school setting/community to operate in concert for the benefit of the safety of the student. However, other studies suggest that cyberbullying needs to be tackled differently and that responses should demonstrate understanding of the technologies involved.

Internationally, there have been many responses proposed to deal with cyberbullying, and the COST (Cooperation of Science and Technology) Action on Cyberbullying (<https://sites.google.com/site/costis0801/>) undertook a cross-national review of guidelines from 27 countries (O'Moore et al., 2013) in order to arrive at a set of responses which could be agreed upon as 'good practice'.

Given that cyberbullying can straddle across school and off-school premises, as well as overlap with more traditional bullying behaviours, it is not a simple matter for individuals, teachers, schools, families or communities to respond, prevent or intervene. Much cyberbullying is concerned with breakdowns in relationships and therefore requires consideration of relationship solutions. Approaching relationship solutions which straddle online and offline settings, where adults have never experienced life as an online adolescent, requires a multi-pronged approach.

Fifty-four national guidelines created by government or non-government organisations were considered with a questionnaire developed for each country to examine background information and four inter-related domains:

- *supportive social environment*: refers to anti-bullying ethos in the school and the promotion of positive relationship values and positive uses of technology in social interactions;
- *proactive policies, plans; practices*: refers to strategies for preventing and dealing with cyberbullying through school policy and practice;
- *staff, student and parent key understandings and competences*: refers to structural/technical advice, school curriculum and whether the guidelines provide opportunities and activities for using technology positively; and
- *collaborative school-family-community partnerships* refers to whether the guidelines recognise the need for a collaborative effort between students, parents, schools, and sectors to address cyberbullying, and how well the guidelines provide information about where additional support and information can be found.

After rating each guideline, the review found that most guidelines targeted parents, followed by young people, then teachers and schools. Most dealt with cyber safety rather than cyberbullying; over a quarter did not provide any definition of cyberbullying; over one-third provided no information on the prevalence of cyberbullying; and over half made no reference to the empirical literature relating to cyberbullying (p 143).

However, there were some clear implications for future research and practice. They reflected the need for schools to employ a whole-of-school community approach, and to also consider parent training, teacher training and cooperative group work. Parents play a role in supporting their children to become ethical digital citizens, and collaborating with the school in partnership to achieve this. Few guidelines mentioned cyberbullying in online gaming, or the reporting of incidents to authorities such as the police. The most important aspect from the review however was the need for young people to take some leadership in their communities and to determine the social norms they want in this environment.

The challenge is for all members of the school community to have shared responsibility for collaborating to overcome cyberbullying. However, one clear recommendation was that schools need to facilitate young people to take their own active role in discouraging cyberbullying and supporting those who become victims (p 157).

Farrington and Ttofi (2009) and Ttofi and Farrington (2011) conducted meta-analyses of school-based programs designed to reduce bullying (but not specifically cyberbullying) and found that 17 of the 44 whole-school studies which met their strict inclusion criteria had, on average, decreased perpetration of bullying by 20–23 per cent and victimization by 17–20 per cent. The components of those programs which were associated with a decrease were: parent training/meetings; improved playground supervision; disciplinary methods; classroom management; teacher training; classroom rules; whole school anti-bullying policies; school conferences; information for parents; and cooperative group work (p 67), with the most important program elements reported to be: *disciplinary methods; parent training/meetings; videos; and cooperative group work* (p 66). In addition, the duration and the intensity, the so-called ‘pill and dose’ of the programs, were deemed important for both children and teachers (p 69). It was also found that whole-school approaches worked better with older children.

However, given that many of those who bully in traditional, offline ways have also been found to bully online, and those who are victimised offline are often victimised online (Beran & Li, 2007; Cross et al., 2009; Hinduja & Patchin, 2008; Smith et al., 2008; Vandebosch & Van Cleemput, 2009) it is apparent that cyberbullying does not sit *alongside* traditional forms of bullying as a totally separate phenomenon. Rather, it straddles both the online and offline social experience, cycling seamlessly between the two.

Cyberbullying responses must make use of what has been found to be successful for traditional forms of bullying, but must also reflect an understanding of this new electronic and technological environment and how *relationships* are conducted in and around it.

Two issues arise for consideration at this point. Firstly, unlike traditional forms of bullying, *cyberbullying* is *not* part of adults' former experiences at school, and so they have never experienced it as children or teenagers do. In terms of understanding what it means to socialise via social media in positive ways, and trying to intervene, to stop or prevent undesirable or unpleasant consequences of bullying through technology, the experts in this case are clearly not adults, they are *young people*.

Without the significant input of young people, through their 'voice' and participation, cyberbullying interventions which evolve from traditional bullying interventions, devised by adults solely for use in traditional school settings, may seem fated to less than optimal outcomes (Spears & Kofoed, 2013).

Secondly, schools should also be consulted.

Legal responses to cyberbullying are discussed in Part B and explored further in Part C Reports.

5 Key findings

This report has focused on the evidence-base for the prevalence of cyberbullying internationally and in Australia and how such incidents are currently being dealt with.

There is no agreed definition of cyberbullying, nor is there one way of assessing prevalence, and this review has found that the findings regarding prevalence in different studies are highly dependent on the definition of cyberbullying used and the way the question is asked of survey participants. This reflects the broader international issues and challenges with definition and measuring prevalence.

Thus there is a wide range of findings across studies concerning youth cyberbullying prevalence ranging from approximately 6 per cent to 44 per cent.

The key finding from this review is that a high proportion of young people – the best estimate being approximately 20 per cent of 10–17 year olds a year (around 463,000 Australian children in 2013) – are victims of cyberbullying.

There is evidence to indicate that cyberbullying increased from the early 2000s, probably as a result of increasing numbers of young people using the internet and mobile phones for their day to day interactions (ACMA, 2013). As device ownership reaches saturation, it may be that there is not such a rapid increase of the prevalence of cyberbullying in the future; however, the evidence is that cyberbullying prevalence is also not declining (Smith 2014), although ‘traditional’ bullying is reportedly in decline over the last ten to twenty years (Rigby & Smith, 2011).

The evidence indicates that the peak age for cyberbullying prevalence is around 12-15 years old and that are much lower rates of cyberbullying amongst children aged 11 years and under although little research has been conducted with this age group due to the considerable challenges (Kowalski, 2014; Tokunaga, 2010).

Overall, girls reported being victimised more than boys but studies differ as to the gender of the majority of cyberbullies which also appear to vary by age and type of cyberbullying behaviour (Smith, 2014).

A high proportion of cyberbullying victims are also cyberbullies and so these are not mutually exclusive categories. Similarly, there is no easy division between ‘traditional’ bullying and cyberbullying as they often overlap, meaning that interventions and preventions must look at strategies which deal with both traditional bullying and cyberbullying (Smith, 2014).

A wide range of online activities can be classified as cyberbullying but it appears that social media and social networking sites such as Facebook and YouTube are the contexts for much current cyberbullying.

The prevalence of cyberbullying in Australia, as extrapolated from the studies reviewed in this document, falls within the international spectrum of 10-40 per cent (see Kowalski et al., 2014; Walker et al., 2013).

Cyberbullying appears to be increasing, but the rate and nature of the increase is not known partly because the vast majority of surveys have been one off exercises and not repeated with similar questions and samples over time. In particular, it is not known whether the increase is simply a reflection of the greater time young people spend on the internet and therefore cyberbullying is just another manifestation of traditional bullying, or whether it is a different sort of phenomenon.

The most common responses to cyberbullying were: telling someone (for younger children), and blocking the cyberbully (for teenagers). Schools were also often involved in responses to cyberbullying incidents however there is a gap in the research literature about the outcomes of these responses, and which actions on the part of children, parents and authorities were effective in stopping the cyberbullying and supporting the victim.

Cyberbullying is a complex online social relationship problem that transcends off- and online boundaries. Many factors influence prevalence estimates and have been outlined in this report. Of most importance are the definition, the time reference period and the frequency criteria. Lower estimates reflect tight adherence to these, and more relaxed approaches to frequency and time result in higher prevalence estimates.

Either way, children and young people are being impacted by cyberbullying to the point where some engage in self-harm and suicidal ideation. Clearly this is not something to be taken lightly. Other impacts relate to academic achievement and school attendance. There is also some evidence that marginalised children and young people are more vulnerable to cyberbullying (Smith, 2014). The cost to society of doing nothing is substantial, and doing nothing is not an option. The best way forward however, is as complex as the phenomenon itself.

The evidence-base for effective interventions for cyberbullying is still being built, and although the response to cyberbullying is seen as similar to traditional bullying (and also to cyber-safety more generally), it is not yet known whether evidence-based programs which are successful in preventing and responding to traditional bullying, will be successful in responding to cyberbullying.

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