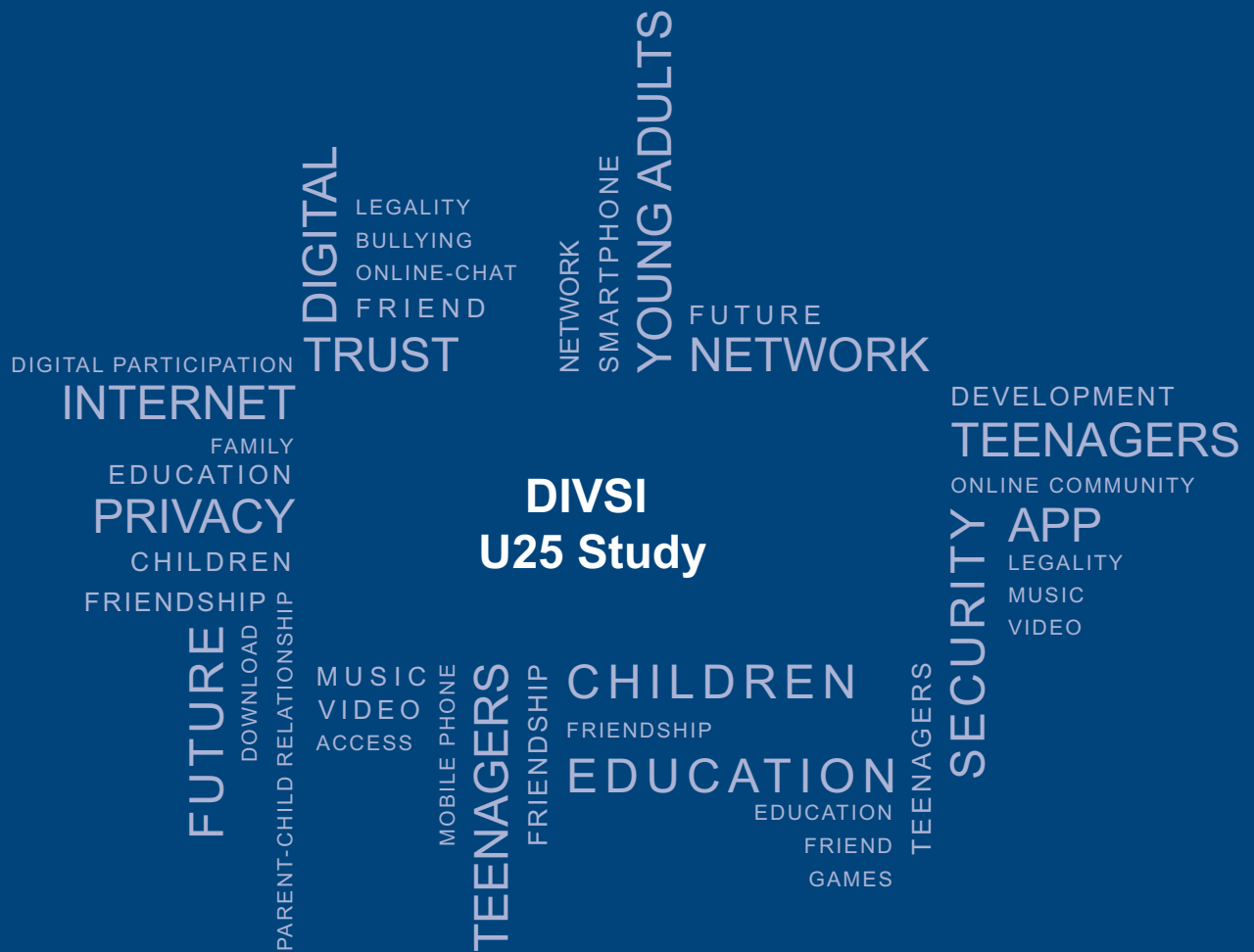




Deutsches Institut
für Vertrauen und
Sicherheit im Internet





DIVSI U25 Study

**Children, adolescents and young adults
in the digital world**



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Children, adolescents and young adults in the digital world

A baseline study by
SINUS Institute Heidelberg
on behalf of the
German Institute for
Trust and Security
on the Internet (DIVSI)



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DIVSI U25 Study Children, adolescents and young adults in the digital world

A ream of hardened conceptions on a wide variety of topics cling tenaciously to the public consciousness. Repeated often enough, platitudes whose veracity can rarely be checked against naked truth at some stage become purported fact. And the persons appraised, all too often with nonchalant superficiality, never experience a fair and balanced appreciation of their behaviour.

This fate has also befallen children, adolescents and young adults in the assessment of their approach to the Internet. For until now there has been a dearth of academically sound analysis, intended to purposefully, precisely and without bias explore behaviour among the 9 to 24 age group in the digital world.

The DIVSI U25 Study is the first of its kind to deliver substantiated answers to questions relating to how the younger generation conducts itself when it comes to the net. And it is comprehensive. It transcends the mere forms of use to analyse the logical structures of reflection and action and the real-life backgrounds of those within the study group. Maintaining the principles of work we have established and continue to uphold, we have succeeded once more in presenting profound insight into an eminently important complex. The study was created in cooperation with SINUS Institute Heidelberg.

Allow me to emphasise a few facts that I believe possess particular interest:

- 98 per cent of 14- to 24-year-olds use the Internet. In contrast, 19 per cent of the overall population are offliners.
- The dividing line between on- and offline time has all but disappeared. Smartphones have become our constant companions in all areas of life. Thus equipped, sometimes also clutching a tablet computer, we have become constantly capable of uninterrupted access to a variety of options for use and communication. Most of us can no longer imagine a life 'without' all this.

- From year to year, Internet use nudges its way pervasively through each aspect of everyday life. And for children, this mainly means games. The focus is drifting gradually towards incessant communication via online communities and messaging services. Communicating with friends has become the most important facet of Internet use for adolescents and young adults.
- But not everyone perceives being online the same way. The study has identified seven distinct Internet milieus. They differ according to the lifeworlds they inhabit, their modes of access to the net and their attitudes towards trust and security on the Internet.
- Educational background is an equally important aspect of social inequality when it comes to media use. The style and manner of media use among children, adolescents and young adults differ substantially along the lines of formal education. And the consequences can be fatal in an age where digital participation is tantamount to social participation.
- The actual meaning of Facebook friendships is misrepresented in most instances. Our study indicates that those surveyed do indeed make clear distinctions between online friends, personal acquaintances and their genuine, close friends.

In these six facts presented above we see already that the study delivers facts that may indeed prompt a shift to new perspectives. The study will contribute to fostering a more nuanced appreciation in Germany when it comes to how children, adolescents and young adults conduct themselves in the digital world. I hope that you find the DIVSI U25 Study an interesting read and look forward to your comments.

Matthias Kammer
Director DIVSI

1. Introduction

1.1 Background and purpose of the study

The focus of attention in discussions centring around digital life and discourse on intellectual property rights and online communities¹ turns frequently to young people. One of the factors that prompts this attitude is the fact that over the coming years, this age group will play a pivotal role in shaping which aspects of Internet conduct become part of our culture and will hence define the boundaries within which other social groups interact.

But at the same time there are no current studies that analyse the value-based perceptions of legality and security in an online context among persons aged under 25. However popular the collocation of 'youth plus digital' may be, and however much it occupies a central position in a variety of youth studies, the aspect of how behavioural patterns in a digital realm are coupled with a personal system of values has received scant attention. Unlike other established youth studies that concentrate on digital topics around device ownership and intensity of use (duration, frequency, type of activities), this study zeroes in on the logical structures of reflection and action among children, adolescents and young adults,² introducing to the analysis a methodology of milieu appraisal to deliver sharp socio-cultural focus.

The study does not concern itself merely with types and habits of use. Instead it determines the underlying framework of values, explains trends in use against the backdrop of lifeworlds and hence identifies nascent signs of seismic change processes in society's understanding of trust and security on the Internet.

This study presents the selected thematic complex from the perspective of the younger generation itself: Preparing the ground through qualitative exploration – in classic focus groups and also in online chats³ – the study ensured quantitative enlargement on precisely the topics that hold relevance in the everyday lives of young people. We were also careful to define the topics in the vernacular of the younger generation. The DIVSI U25 Study charts a map of the digital lifeworlds that children, adolescents and young adults inhabit and the challenges they pose respectively. It therefore delivers valuable and distinct pointers indicating how young people should be addressed and thus paving the way to develop facilities in fostering media and Internet competency.

¹ In this study, the term online community is taken to mean social platforms on the Internet. Online communities may be forums, chatrooms, social networks (e.g. Facebook, Xing), microblogging services (e.g. Twitter), photo platforms (including Flickr) and such like.

² The following defines children as persons aged 9 to 13, adolescents as those aged 14 to 17 and young adults as persons aged between 18 and 24. Please compare Chapter 3 ("Consequences for the study design: a spotlight on 9- to 24-year-olds") to see reasons for selecting these age groups.

³ Qualitative group discussions conducted on an Internet platform created for this purpose.

1.2. Research questions

The purpose of the study is to provide a broad-based representation of the digital lifeworlds that young people inhabit. So analysis will centre on more than just media use. It will also concentrate on the prevalent attitudes among children, adolescents and young adults when faced with topics such as Internet privacy or swapping and sharing media content. Appreciation of how that young people view trust and security on the Internet will also occupy a central position. The individual research questions are:

Media use in everyday life

- What role does the Internet play in the everyday life of the younger generation?
- Which online offerings do they trust, and why?

Privacy and identity

- What significance does privacy possess in the everyday lives of children, adolescents and young adults?
- How do they deal with their own privacy on the Internet? How do they make decisions? What do they accept? What boundaries do they define? What risks do they take?
- Who is an Internet 'friend'?

Swapping and sharing

- To what extent do children, adolescents and young adults consider the legality or illegality of web offerings and their own actions on the Internet?
- What are their principles when it comes to assessing the legality or illegality of their actions?
- Which criteria guide their actions when it comes to uploading and downloading content?
- To what extent do children, adolescents and young adults distinguish between material possessions in their environment and digital commodities on the Internet, and how do they apportion them value?
- Do they see a difference between the legal realms of the analogue and digital worlds?
- What attitudes do they have towards the protection of property rights (e.g. when downloading music) on the Internet?

Trust and security on the Internet

- To what extent does an appreciation of data abuse exist? How large is the insecurity and uncertainty factor?
- How real is the perception of risk, and which dangers are recognised?
- Who do young people trust to handle their data? What conditions nurture trust? What does trust on the Internet even mean to children, adolescents and young adults?
- Which institutions (e.g. parental home, school, peer group⁴) support children, adolescents and young adults in nurturing a critical Internet competency?

1.3 The summarised methodical procedure

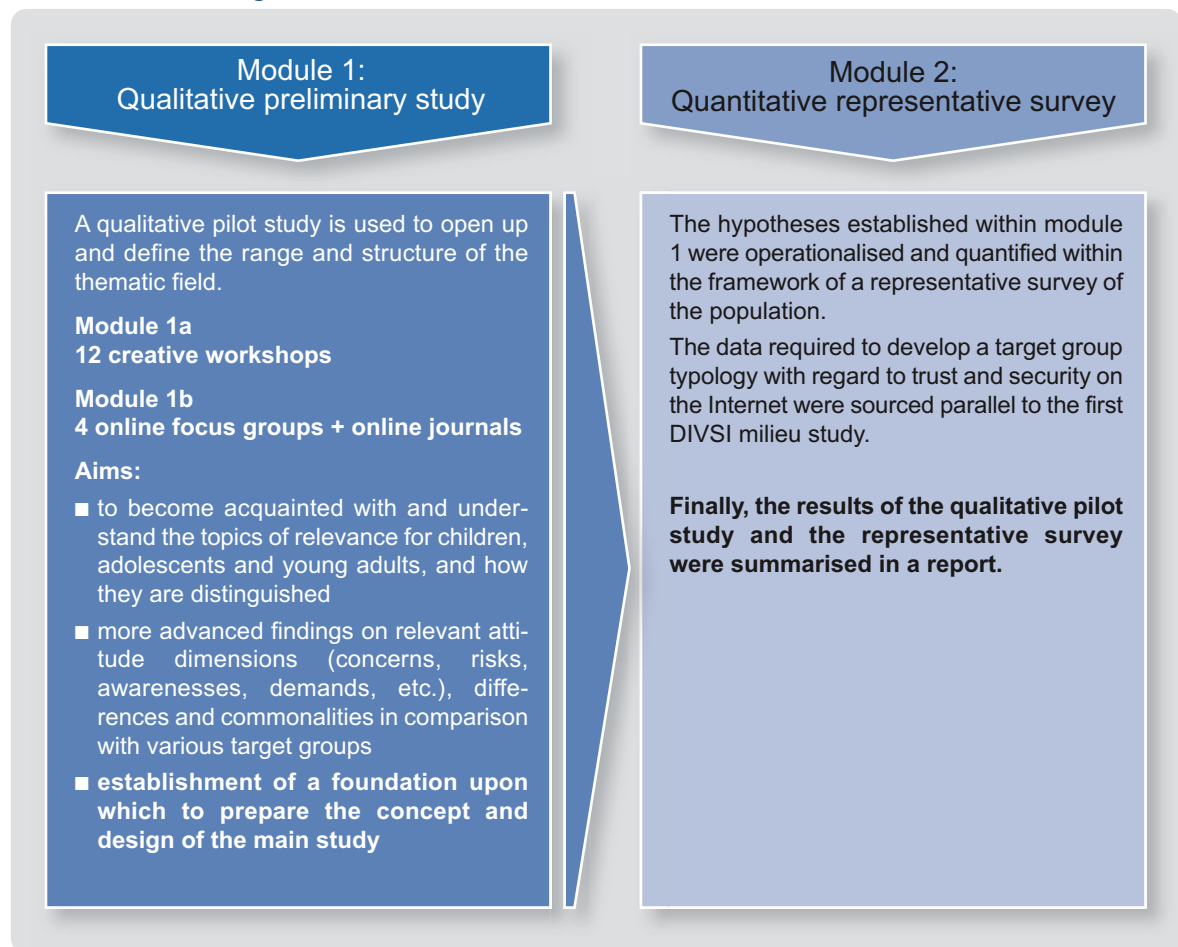
A two-stage survey procedure combining qualitative and quantitative methods was needed to provide answers to the questions of relevance to this research. The objective of defining the pertinent topics in the vernacular understanding of children, adolescents and young adults in particular gave rise to the necessity of producing a qualitative-psychological pilot study. The quantitative study was designed based on the results of this study.

The large age gap between the youngest and oldest interviewees (9 to 24) necessitated the application of an age-sensitive survey method to suit the various stages of personal development among those interviewed. This impacts equally on the content of questions. The lion's share of questions were put to all participants; only specific questions were reserved for individual groups (e.g. children were not asked about online banking).

The diagram on the following page provides an overview of the two-stage research design. The appendix to this report contains a detailed presentation of individual study phases and the methods of evaluation.

⁴ The specialist term 'peer group' used in the discipline of sociology is taken to mean a group of persons in more or less an equivalent age that operates as the primary social reference group besides the parental home.

Research design



2. Central findings

- The lives of children, adolescents and young adults are inconceivable without digital media. 98 per cent of adolescents and young adults, even 86 per cent of children, are online.
- But not everyone perceives being online the same way. Seven distinct U25 Internet milieus were identified, differing according to the lifeworlds they inhabit, their modes of access to the net and their attitudes towards trust and security on the Internet.
- Both the *Self-assured* and the *Pragmatists*, see themselves as part of a digitised future – and are unable to imagine a coming world in which the Internet does not exist. But the *Conscientious* and *Sceptics* consider it at least a possibility. *Freewheelers* perceive the Internet as playing a lesser role in their personal – private and professional – future.
- *Freewheelers* display distinct insouciance when faced with possible risks of the Internet and are unlikely to take any safety precautions. *Pragmatists*, like the *Self-assured*, deploy a broad range of security precautions. The *Cautious* and the *Insecure* frequently display a more reluctant use of the Internet based on their heightened perception of risk.
- But being online is among the central elements of social participation for the younger generation. Parental income and levels of formal education are revealed as the ‘gatekeepers’ to this world. Accordingly, more educated persons display greater self-assurance in handling the Internet and are less frequently asked to carry the costs of Internet at home from their own pockets.
- Children are permitted only strongly regulated access to the Internet. Online behaviour is predominantly self-regulated above the age of 14. Parents define few rules – and are unable to monitor the standards they do set.
- Today’s children, adolescents and young adults are expert networkers. Online communities are used early on and intensely. Facebook and the messaging service WhatsApp⁵ are the dedicated lines between friends.
- The term ‘Friend’ has acquired a multidimensional denomination whose range of nuanced meanings and assigned qualities is handled confidently and across a broad spectrum; Facebook friends, personal acquaintances and close friends are distinct entities. And in this the number of close friends remains largely untouched by the number of online friends.
- A new perception of privacy is evident: Personal data is considered less worthy of protection. But information that may impact on social reputation becomes increasingly pivotal. Online communities especially demand a certain degree of openness with regard to personal data.

⁵ The WhatsApp messaging service is an application used to exchange messages on Internet-ready mobile telephones. There are additional options to share image, contact, video and audio files. The application is among the group of instant messaging programs; unlike standard text messaging it is not an independent service that mobile communications providers offer, and instead uses Internet access.

- Online, Facebook is specifically not the right place for intimate conversations. Very personal matters and serious topics are more commonly discussed face to face.
- 34 per cent of children, adolescents and young adults perceive bullying as one of the greatest risks in using the Internet; three per cent report that they have personally experienced bullying.
- In terms of their perception of legality, those surveyed appear to believe that if everyone is doing it, it is allowed. Although there are some doubts as concerns the legality of certain actions such as uploading and downloading content, their widespread use tends to tip the balance.
- Publications concerning of the covert intelligence service activities in digital realms have prompted a good third of young people to feel less secure. But in response, they do not see it as an option to curtail their online activities or the time they spend online.
- Young people manifest a pronounced tolerance of sketchiness and uncertainty on the net. But the relevancy of online offerings and the established habits and routines of use displace any sense of manifestly uneasy trust.
- Children see their parents as the go-to people when it comes to the Internet. Adolescents and young adults turn mainly to their circle of friends. Faced with questions of security, they place significantly more trust in their friends than in their parents, teachers or other institutions.
- Children are revealed as the new Internet optimists: 82 per cent are convinced that in future, it will not be possible to be entirely offline. This opinion is shared by 70 and 71 per cent of adolescents and young adults respectively.
- Young people connect to the Internet mainly by smartphone. In the subjective appreciation of adolescents and young adults, quite a few boundaries between online and offline times are diaphanous.

3. New worlds, new values, new words?

What does media socialisation mean today?

Nowadays the various forms of media are self-evident elements in the lifeworlds of children, adolescents and young adults. 9- to 24-year-olds are fully kitted-out with media equipment; their portfolio of devices ranges from televisions and desktops to laptops, games consoles, smartphones and tablet computers.⁶ Children and young people receive access to their own devices early on, as many households possess multiple sets of equipment.

But media equipment alone says nothing about how children, adolescents and young adults handle the media, as an analysis of access will provide a merely restricted conclusion on the actual use. The DIVSI Milieu Study⁷ in 2012 stated plainly that taken on its own, online access is irrelevant to the question of whether a person will regularly go online in everyday life. Further, there are distinct differences in the manner in which persons with varying degrees of education will use what are frequently the same media for unrelated purposes and at times with their own preferences. But leaving aside the scope of differentiation, it is of substantial importance in understanding the results available here to grasp the defining influence of media in all their variety as crucial factors of influence in developing identity and the concept of the self among many young people.

3.1 What are today's media, and when are we actually online?

Technology has developed at an ever-faster pace since the start of the 1990s, extending its influence to the lifeworlds of the young people interviewed. The introduction of new devices has dominated change since the start of the 1960s (e.g. radio, (colour) television, audiotape recorders and video recorders, etc.). But the technological accomplishments of more recent times have cast the spotlight increasingly on new forms of operation and interface structures (e.g. touchscreen, app-based services), new functions to promote user-friendliness and network facilities (e.g. miniaturisation, all-in-one solutions, mobile Internet use) and new methods of communication (e.g. social networks and messaging services).

Recent years in particular have seen another sharp rise in options available to disseminate texts and images. While the options of communicating via the Internet were previously restricted to sending and receiving emails or visiting chat forums, the number of networking channels now available has spiralled exponentially. And besides the classic online communities like Facebook, there is an increa-

⁶ A tablet or tablet computer is a portable, flat computer in a particularly lightweight design that, unlike notebooks, is not equipped with a folding keyboard. Tablets are especially easy to use due to their low weight and touch-sensitive display. In terms of performance scope, operation and form, the devices are similar to modern smartphones.

⁷ German Institute for Trust and Security on the Internet 2012: Milieu Study on Trust and Security on the Internet, Hamburg

sing tendency among many other online offerings to adopt the guise of a network (e.g. YouTube⁸, Twitter⁹).

This has prompted a seismic shift in the understanding of what constitutes media: in this study we will take media to mean tools with which texts, sounds and images can be transferred and shared, and which are used for contemporaneous communication.

And it is in this emergence as tools of dissemination and communication that we find a key to understanding how children, adolescents and young adults use media. The crucial aspect in their eyes is communication. The results of this study will underline that media offerings have almost become a requisite infrastructural framework of friendship among young people. Online communities in particular are self-evident data highways that practically everyone travels – however much their relative speeds and driving styles may differ.

The concept of ‘being online’ is central to the use of media diversity within Internet-based communication. But a precise definition of what ‘being online’ truly means is conspicuously absent in an age of constantly connected smartphones. Until now the understanding of ‘being online’ has presupposed preparation (booting the computer, connecting to the Internet, opening the browser) and has hence described a conscious activity exclusively made possible based on this Internet connection.

Smartphones and/or tablet computers are most commonly connected to the Internet on a permanent basis whenever they are on, and provided an Internet connection is technically available. If we consider that these are the precise devices that play the greatest role in the everyday lives of children, adolescents and young adults, it is clear that they have the subjective perception of being online whenever their device is switched on – so, most of the time.

This provokes the necessity in this study of extending the definition of ‘being online’ to include the perspective within the survey group and hence to bring in the subjective perception of being online. It became clearly apparent that those interviewed consider ‘being online’ as less of a connection established by technical means and more of a situational description; so ‘being online’ means the perception of real-time accessibility potential to a large variety of data and the contemporaneous capacity to receive incoming data classified as relevant information.

It follows that for persons aged under 25, being online is synonymous with being connected to the universal network of personal friends, acquaintances and family.

⁸ The video portal YouTube allows user to watch video clips, also to rate and comment on them and to upload their own video clips.

⁹ Twitter is a digital real-time application to publish short messages not dissimilar to telegrams. It is also described as a communication platform, a social network or an online journal with predominantly public accessibility.

3.2 Media socialisation and the formation of personal identity

The study also deals with the question of how young people acquire the skills needed to handle media – especially within an online context – over the course of their socialisation.

Socialisation theory assumes that specific socialisation entities are relevant to children, adolescents and young adults. For children these would be the parental home, the nursery, the kindergarten and the school, besides media and the peer group. But an increasing blurring of lines is emerging between media and social entities. As we see from the elaborations above, the communication options that media offer are ever more becoming a quasi-requisite infrastructure for maintaining and cultivating friendships.

Some of the fascination that the media exert is down to their ability to satisfy very diverse needs and to serve a variety of purposes, ranging from the provision of information and entertainment to the regulation of moods, the formation of opinions and even the provision of solution models for personal and developmental problems. Media also help negotiate values and standards, the perception of roles, morals and ethics in intercourse within the peer group. The main thrust of communication within the peer group is on social experiences in the everyday lifeworld.

So it is fair to say that the formation of identity plays out in a social context. It is not merely a question of individual identity among children, adolescents and young adults. Instead it equally concerns the position they occupy within society as a whole. Media play a substantial part in conveying the standards and values upheld within society. They teach the younger generation to see their place in the world. This place is then defined and negotiated in narrower terms through communication in the peer group; after all, mingling with friends occupies a far greater priority than media themselves. Instead, media must be perceived as tools to satisfy the desire for association with friends.

Media also play an important role in cutting the umbilical cord to the parental home, as they offer space into which the parents (can) have merely restricted insight. Hence they represent one of the few, but important, demarcation lines.

The results of the survey presented hereafter will therefore elucidate that increased media use in the everyday life of young people does not produce paucity in their social relationships. Quite the contrary. Instead they have enriched options for social integration within both their families and their peer groups. Once blended, media use and communication with family members and friends make a crucial contribution to identity and self-perception among children, adolescents and young adults¹⁰.

One of the challenges facing the acquisition of media competency is hence the integration of technical developments within the process of socialisation, enabling young people to become both socially responsible and skilled in their use. Ideally this would prompt the inclusion of all generations within the equation, especially as the expanded options of information and communication are just as much virgin territory for parents and teachers. But first of all it is necessary to analyse actual media behaviour to understand the significance of digital media in everyday life and thereupon to undertake measures tailored for each target group. This study provides a response for the age group of 9- to 24-year-olds.

¹⁰ Mikos/Hoffmann/Winter 2009: Mediennutzung, Identität und Identifikationen: Die Sozialisationsrelevanz der Medien im Selbstfindungsprozess von Jugendlichen. Weinheim. p. 9f

3.3 Consequences for the study design: A spotlight on 9- to 24-year-olds

This study concentrates on children, adolescents and young adults in an age group stretching from 9 to 24. In doing so we a) cater to the broader span of 'youth', which today begins aged 10 and may extend to 24-year-olds¹¹ and b) consider the spiralling acceleration in technological transformation that produces current scenarios in which some 9-year-olds experience a different media socialisation to their fellows barely 5 years older.

- a) It is insufficient to state that the boundaries between childhood and adolescence and between adolescence and adulthood have merely broadened; instead they have also become blurred. Whereas in its emergent stages (during industrialisation in the early 19th century), adolescence was considered a clearly defined, brief period from nascent sexual maturity to the start of a working life with establishment of a separate family,¹² this development has long since ceased to play out in linear and clearly distinguishable stages; indeed, not every social milieu considers it a necessary condition of becoming an adult.

Adolescence today is defined as an independent stage in life that pushed the boundaries of a purely transitional phase some time ago.¹³ In our modern age, adolescence is a phase in life primarily characterised by freedoms that are unfettered by the restrictions so typical of childhood and unencumbered by the characteristic responsibility of earning a living that so clearly delineates adulthood. Yet nevertheless this phase will require adolescents to master specific tasks within personality development.¹⁴ In this, development is perceived as the "productive processing of internal and external reality" and is therefore a stage within which the individual tasks at hand is called upon to play an active role.¹⁵ Further, almost every form of overcoming these at hand tasks takes place today via the media.¹⁶ Thus they can be considered as a kind of "symbolic reservoir for overcoming specific developmental tasks"¹⁷; but they themselves call for competency that children, adolescents and young adults must initially acquire.

- b) Information and communication technology, storage, dissemination and processing currently present a plethora of competency requirements. But this breaks with the tradition of knowledge concerning social skills, as it is no longer passed on from one generation to the next. "The logical progression between generations is [...] disbanded: Media knowledge and other elements of media competency are [...] cultivated and transformed inside of adolescent peer groups."¹⁸ It follows therefore that media competency and patterns of use emerge even without adult influence and above all without any contribution from educational institutions. Here we find young people developing "autonomous forms of behaviour that frequently possess greater

¹¹ Hurrelmann/Quenzel 2012: Lebensphase Jugend – Eine Einführung in die sozialwissenschaftliche Jugendforschung, 11th Completely revised edition. Beltz Juventa, Weinheim and Basel. p. 17

¹² Ibid.: p. 21f; The essential reason for the extension of the adolescent phase of life was the increasing complexity of training and educational requirements and the concomitant extension of training and educational periods.

¹³ Ibid.: p. 21

¹⁴ Ibid.: p. 21 ff

¹⁵ Hurrelmann 2006: Einführung in die Sozialisationstheorie. Weinheim and Basel. 35

¹⁶ Hurrelmann/Quenzel 2012: p. 200

¹⁷ Niesyto 2009: Digitale Medien, soziale Benachteiligung und soziale Distinktion. In: MedienPädagogik. Zeitschrift für Theorie und Praxis der Medienbildung. p. 2

¹⁸ Friedrichs/Sander 2010: Die Verschränkung von Jugendkulturen und Digitalen Medienwelten. In: Hugger, Kai-Uwe (ed.): Digitale Jugendkulturen. Wiesbaden. p. 285

confidence and self-assurance than those found among older members of society.”¹⁹ So consideration of the manner in which children, adolescents and young adults handle the media will always cast a new light on the future societal role of the respective media themselves.

The realms of youth and media are hence meshed together in a tight weave of interrelationships. In consequence, we are frequently confronted with designations such as ‘media generations’ with individual, characteristic handling of – what once more are specific – media. Today this refers primarily to the medium Internet. Diagnostic keywords then include *network generation* or *generation @*. Frequently, however, these terms prove inadequate, not least because they fail to recognise that even within this now prolonged phase of life called adolescence, we can find a variety of ‘digital generations’ among which the accelerated technological and media transformation and the differing conditions it produces have created a range of (media) socialisations.

And this is why, to identify and describe the respective developmental stages, the design of a study among children and young people now requires a wide-angle focus on this age group.

And although we may depart from empirically defined boundaries, we have, to improve the reader-friendliness of this text and to interview the age groups on the specific topics, used the term children to describe 9- to 13-year-olds, adolescents for 14- to 17-year-olds and young adults for those aged between 18 and 24

¹⁹ Hurrelmann/Quenzel 2012: p. 24

4. There is online and online: From digital chasms to the diversity of net cultures

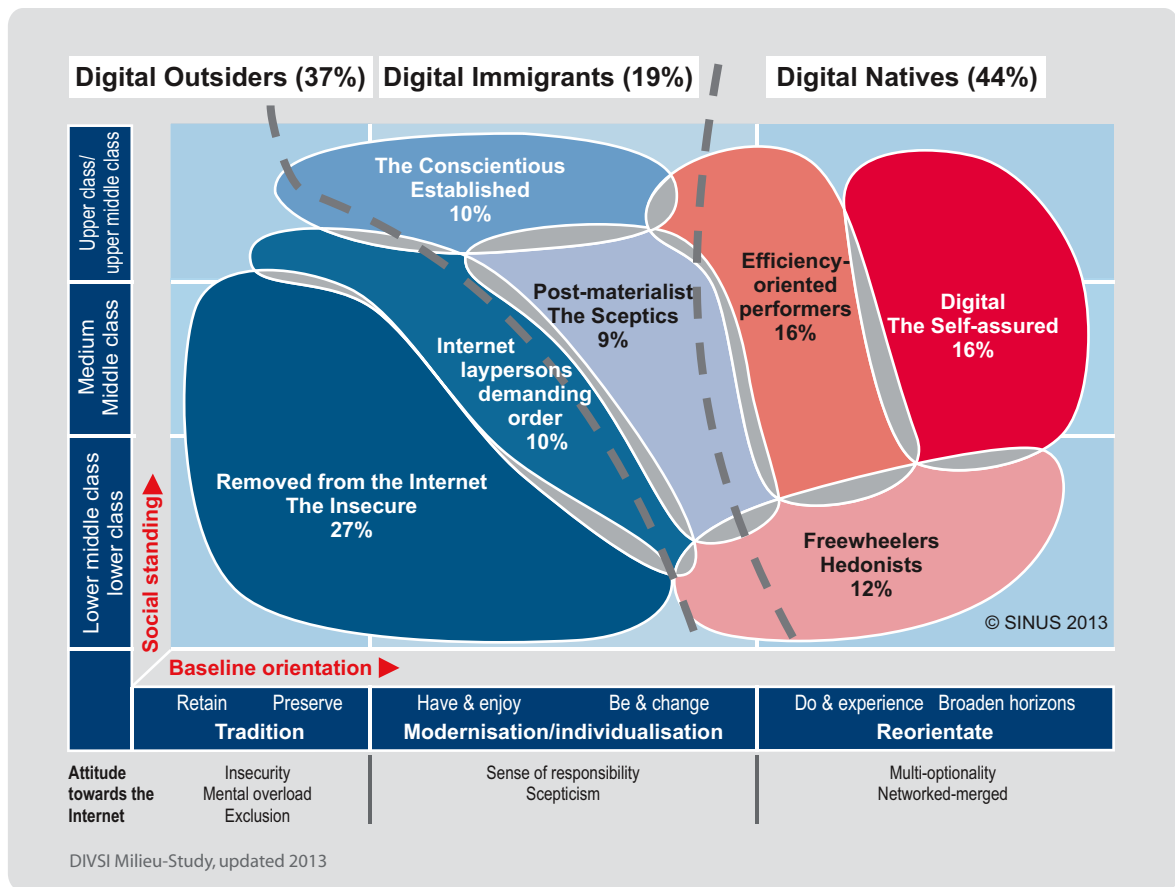
4.1 The new net generation – U25 compared with the population as a whole

The DIVSI Milieu Study 2012 revealed that digital chasms exist within German society: for some people the Internet is an alien world; others are engaged in charting this new terrain, carefully edging forward; then there are those who are online with such self-evidence that they could barely imagine what life would be like without the Internet. The diagram on the following page outlines the DIVSI Internet milieu landscape as we find it within the overall German population. Essentially there are three distinct segments:²⁰

- **Digital Natives** have entirely integrated the Internet within their everyday lives and move through the digital world with poise and assurance. In this segment we find an increasing blur between online and offline. This group accounts for roughly 44 per cent of Germans.
- **Digital Immigrants** move through the Internet regularly, but selectively; they have a critical attitude towards many of its manifestations, in particular concerning the topics of security and data protection. They represent approximately 19 per cent of the population.
- **Digital Outsiders** are entirely or decidedly insecure in handling the Internet and therefore almost never use it. They represent around 37 per cent of the German population.

²⁰ The DIVSI Milieu Study was updated in 2013. The per centages and graphic representations shown here are based on current findings. Cf. Milieu Study on Trust and Security on the Internet. Updated 2013: https://www.divsi.de/wp-content/uploads/2013/12/DIVSI_Milieu-Studie_Aktualisierung_2013.pdf

DIVSI Internet Milieus



But an interesting picture emerges if we consider merely the group of 14- to 24-year-olds²¹ in the overall population: the digital chasms seem to level out entirely. Just two per cent of 14- to 24-year-olds eschew the Internet entirely. In contrast, 19 per cent of the overall population are offliners. Thus, the term ‘offliner’ is practically irrelevant in the younger age group. But even so, ‘being online’ does not mean the same thing for all adolescents and young adults. The younger generation possesses a wide variety of different means of access to the Internet. They refer far less to the breadth of on-line offerings used over the period spent ‘being online’ every day or the technical devices used to access the Internet.

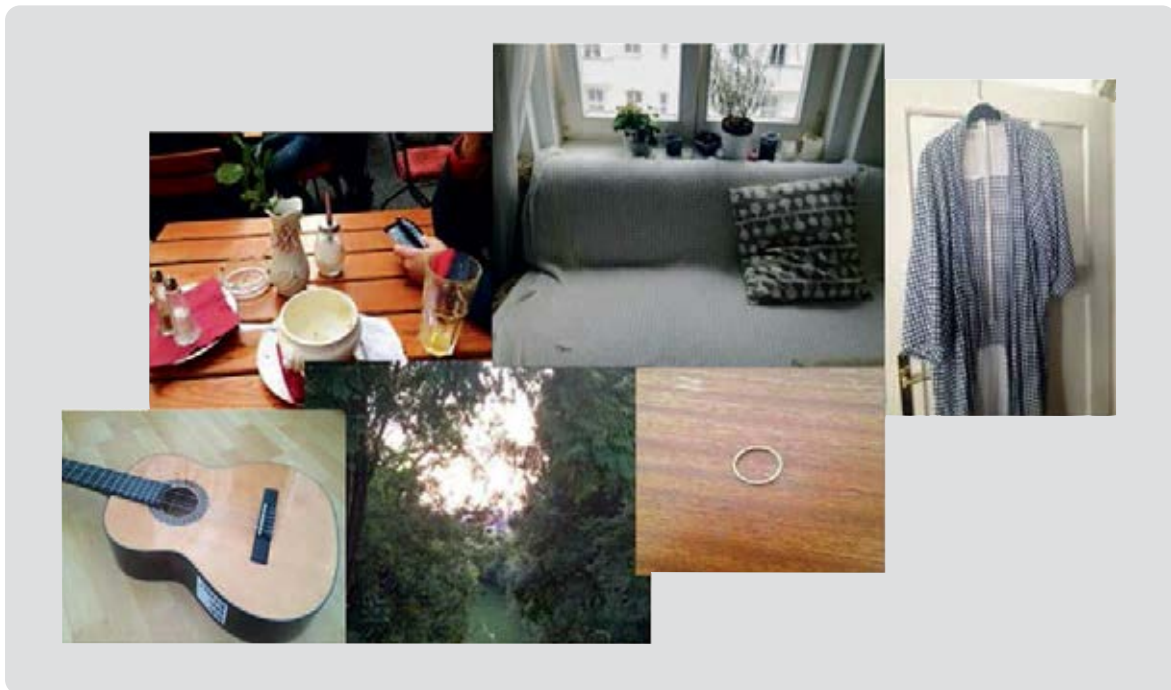
Instead, the differences that come to the fore are found in the subjective self-assurance in handling the net in general and the dangers and risks specifically, as well as the individual attitudes to the personal relevance the Internet will acquire in future. Everyone is online (almost); but this status alone says nothing about the attitude towards, and handling of, the Internet. Hence it is crucial to engage in systematic analysis of the plethora of net cultures within the younger generation aged 14 to 24.

²¹ In the following, children are not distinguished along the lines of varying lifeworlds. The social milieu of parental homes continues to dominate in the age group of 9- to 13-year-olds; please see the further explanations contained in this chapter in this respect.

In general, lifeworlds existing autonomously from the parental home do not emerge until above the age of 14. From this age on, the adolescents develop at times significant differences in the standards they aspire to, which remain effective beyond any distinctions in levels of formal education and – as far as possible – are divorced from the milieu from which the individual hails. So growing up in a milieu classified as Conservative-Middle Class does not necessarily mean the young person will adopt a middle-class lifeworld orientation. Values, goals, desires, fears, recreational habits and cultural slants or aesthetic preferences among adolescents emerge at this age with increasing independence from the perceptions of their parents.

The true magnitude of these lifeworld differences among adolescents and young adults is already apparent in the pictures they created in the qualitative online phase as a form of calling card:

Collage (example 1)



In this collage we see the favourite places (café, couch in shared apartment and park close by), the most important objects (guitar and inherited ring) and favourite item of clothing (inherited kimono) listed by a young woman aged between 18 and 24 from the socio-ecological lifeworld segment²². The socio-ecological lifeworld groups young people whose attitudes embrace sustainability and public welfare topics alongside an underlying socio-critical posture and an openness to alternative lifestyles designs.²³ The young woman adds in her description that the café represents a meeting point in the immediate vicinity and that she appreciates the “*intimate atmosphere*”. The couch in her shared apartment has special standing as it is “*where the occupants get together for communal meals, to chat and to chill for a while*”. Her favourite item of clothing also owes its status to an intangible, purely

²² In the study “Wie ticken Jugendliche 2012” (What makes young people tick 2012) by SINUS Institute, the “adolescents were grouped [in lifeworld segments] that are similar in terms of values, their underlying attitudes to life and lifestyles and their social situation, based on typical perceptions of what may be valuable and worth striving for in life: Conservative-Middle Class, Adaptive-Pragmatic, Socio-Ecological, Risk-Takers, Materialistic Hedonists, Experimental Hedonists, Fleet-Footed”. Cf.: Calmbach/Thomas/Borchard/Flaig 2012: Wie ticken Jugendliche 2012: p. 31

²³ Ibid.: p. 287

idealistic value appreciation: *"It belonged to my uncle; he was an adventurer, and he brought it back from one of his many travels. [...] I admire him greatly because of his adventurous spirit and his openness [...]. It's part memory, part inspiration."* The young woman values her guitar because it helps her *"come down, try out my own stuff"*.

Collage (example 2)



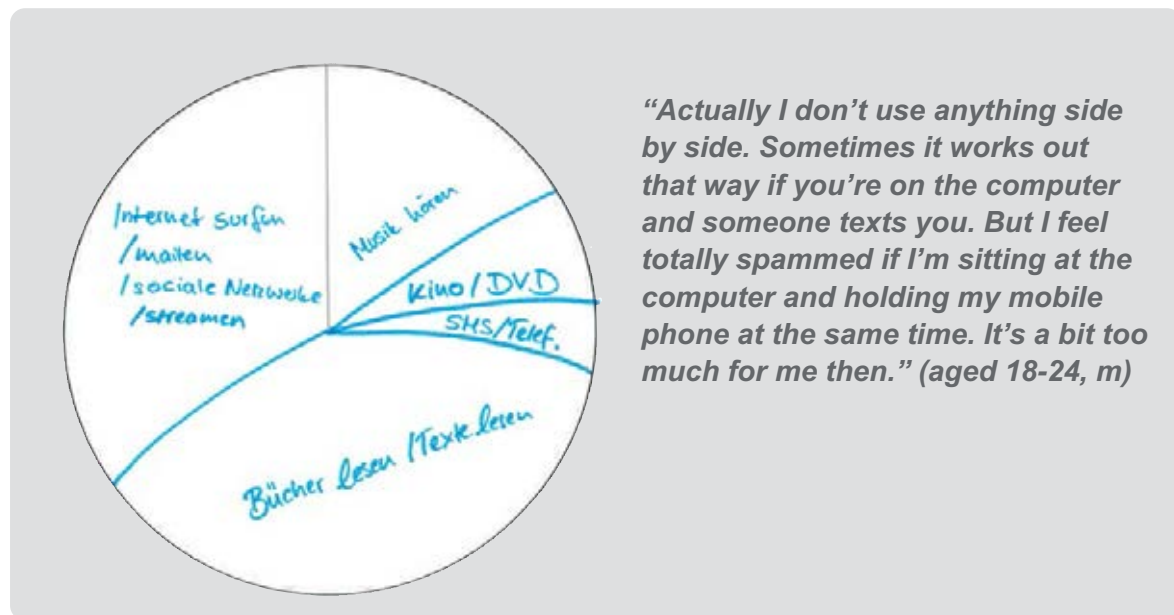
In contrast, this pictorial collage shows the lifeworld of a young woman aged between 18 and 24 and a member of the Materialistic Hedonistic lifeworld segment. This segment describes the recreation-minded lower classes with a distinct consumer focus accompanied by brand awareness.²⁴ This young woman also photographed her favourite places (balcony in her apartment, shopping centre nearby and her own bed) along with her favourite items of clothing (stilettos and a top) and the most important things (dog and television). The shopping centre is an important place for her because *"it's great for shopping and close by"*. She likes her balcony because she can *"sunbathe there and listen to music"*. The top is among her favourite items of clothing because *"it's great to party in and I feel good wearing it."* She chose the shoes because *"they've got high heels, but are still comfy to wear"*.

The pictorial collages that the two young women present indicate more than mere differences in recreational cultures and lifestyles. Instead what we see are entirely distinct principles of value orientation. A materialistically defined lifeworld with a focus on consumption and entertainment in the second collage juxtaposes with a lifeworld in the first collage that reveals post-materialist attitudes based on authentic experiences.

The lifeworld differences are equally apparent in the 'media time pie charts' that the adolescents and young adults created in the focus group discussions to outline their media use habits.

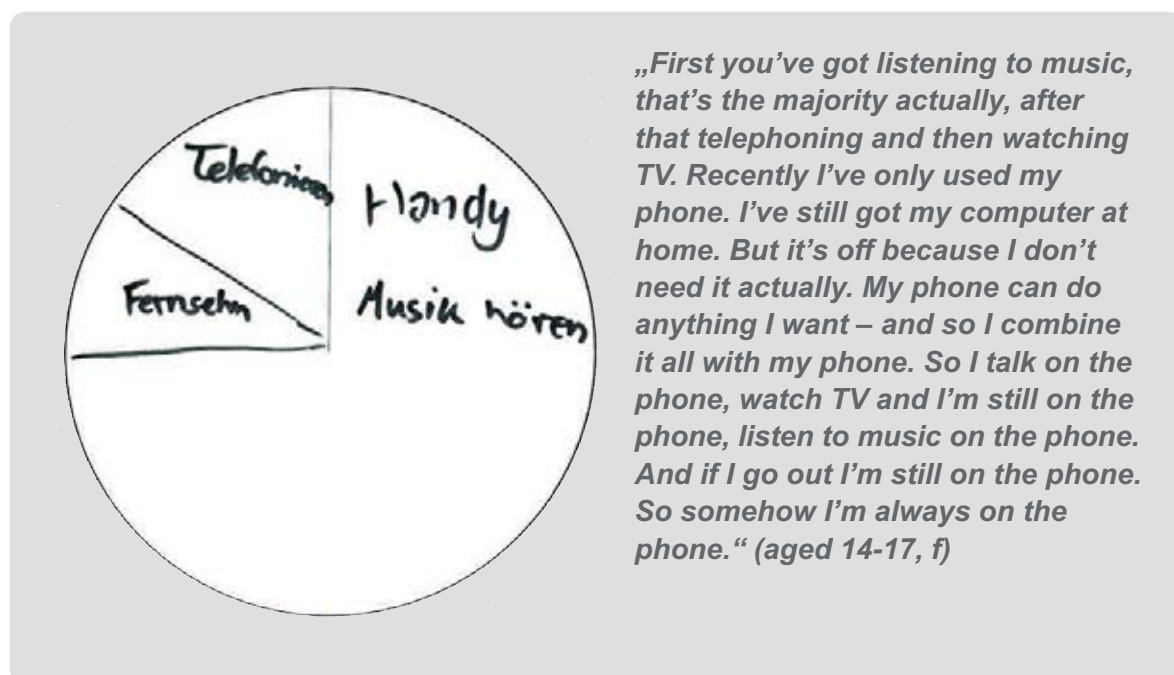
²⁴ Calmbach/Thomas/Borchard/Flaig 2012: p. 211

Media use (example 1)



The first example shows the media time pie chart of a young man in the Socio-Ecological lifeworld segment. The substantial importance apporportioned to explicit reading of books and texts is highly significant. In the matching statement he explains that the parallel use of various media so typical of adolescents and young adults has no place in his life.

Media use (example 2)



Host: *who do you talk to about what you get up to on the internet and what happens there?*

Igor 04: *friends*

Sahin54: *mostly with friends*

Lukas: *only friends*

Sahin54: *rarely with the family*

Ertunc: *FRIENDSSSSSSSSSSSSSS*

Can22: *nobody*

Andrea: *it depends; there's more than just one answer to that*

Enzan: *friendss*

Jul: *with friends; my parents and family are too old, they can just about manage email*

Host: *what does it depend on, andrea?*

Enzan: *haha*

Tom: *hey, that's not going to get us anywhere, this haha and pissing about...get a grip we're all meant to be adults here, on paper at least. It sucks.*

Andrea: *I talk to my parents, but also with other students at uni or my parents about things*

Ertunc: *lets right*

Ertunc: *students at uni ??? not my world*

Igor 04: *ahaha ertunc*

Enzan: *@ Tom, breathe man*

Tom: *breathe yourself, digger*

Ertunc: *I quit school years ago.*

(...)

Host: *how do you know what is safe and what is unsafe on the Internet?*

Ertan: *nothing's safe these days*

Can22: *that's true*

Andrea: *I don't think you can say that*

Can22: *even if they say it's safe, it bites you in the end*

Igor 04: *I can't stay here 2 chat; got to get to rehab1*

Tom: *they didn't talk about that kind of thing when I was at school. the next question: from newspapers/on the news*

Ertunc: *what's up with you I G O R ??*

Host: *please stick to the topic!*

Lukas: *there are safe pages and some that are barely safe. I always think that a page will be safe if it is well-known*

Andrea: *hey people, can we keep our private stuff to ourselves*

Sahin54: *well-known pages are usually safe*

Ertunc: *it's not at all safe. I could do a desktop copy now and upload Facebook but I'm not going to, it's not right*

Andrea: *Google or Facebook come to mind for me (if we're talking about data now)*

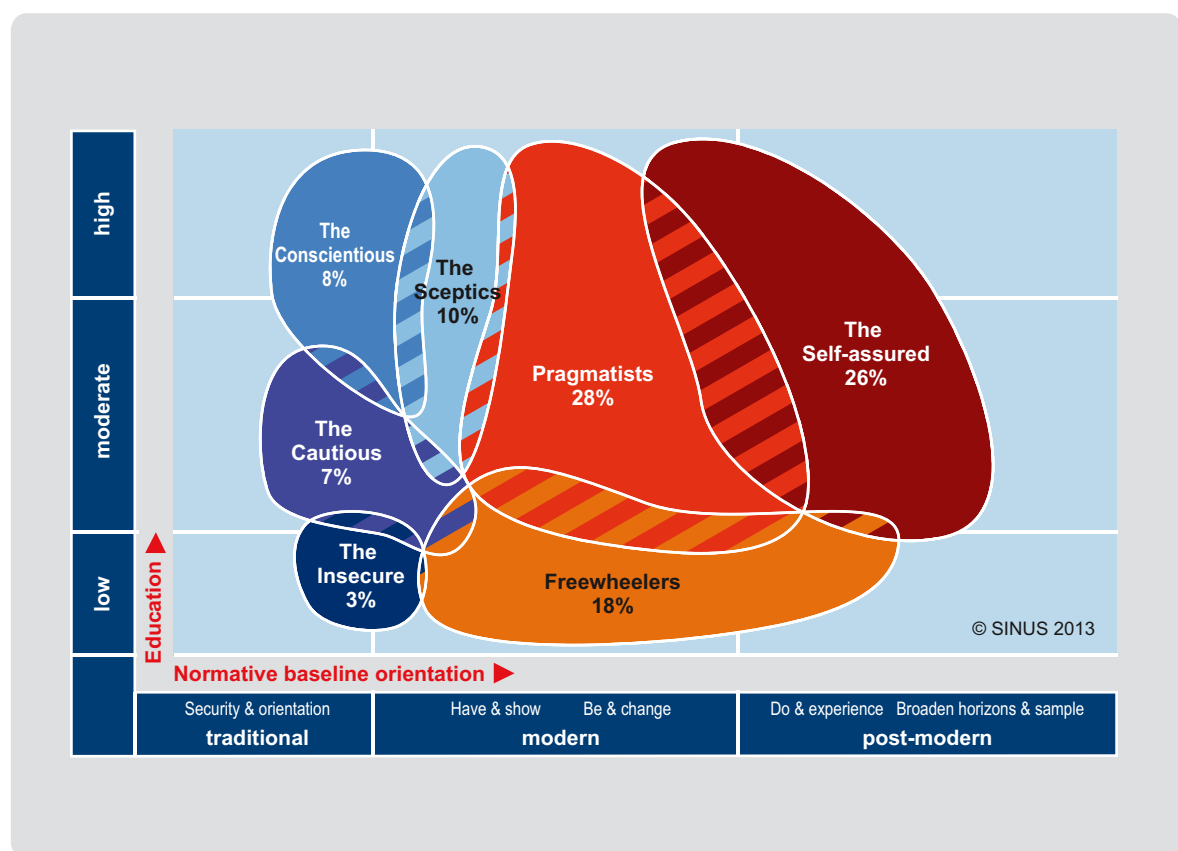
Igor 04: *@ Ertunc tore my cruciate ligament*

Igor 04: *ok sorry andrea*

Igor 04: *captain andrea on we go*

This variety of stylistic slants, accesses to the Internet and communicative cultures can be described in a condensed form as Internet milieus, mutually distinct along the lines of their attitudes, value perceptions and patterns of behaviour in handling the Internet. The following diagram provides an overview of the “DIVSI U25 Internet Milieu Landscape” in Germany, charted as part of this study.²⁶ The digital lifeworlds among adolescents and young adults move along the two primary axes “formal education level” (vertical) and “underlying orientation to standards” (horizontal). The higher we find a group positioned in this diagram, the greater its level of formal education; the more it spreads to the right, the greater its distinctive modernity in the socio-cultural sense of underlying orientation.²⁷

DIVSI U25 Internet Milieus – 14- to 24-year-olds



The manifest differences among 14- to 24-year-olds, compared with the DIVSI Internet milieus in the population as a whole, are truly eye-catching. Although the digital lifeworlds that adolescents and young adults inhabit do not correspond entirely to those of the population as a whole – this would fail to account for generational disparities – the equivalences marked in colour nevertheless permit a baseline comparability. In total, the lifeworlds of adolescents and young adults with pronounced Internet affinities, marked in shades of red in the diagram, represent a larger proportion than the

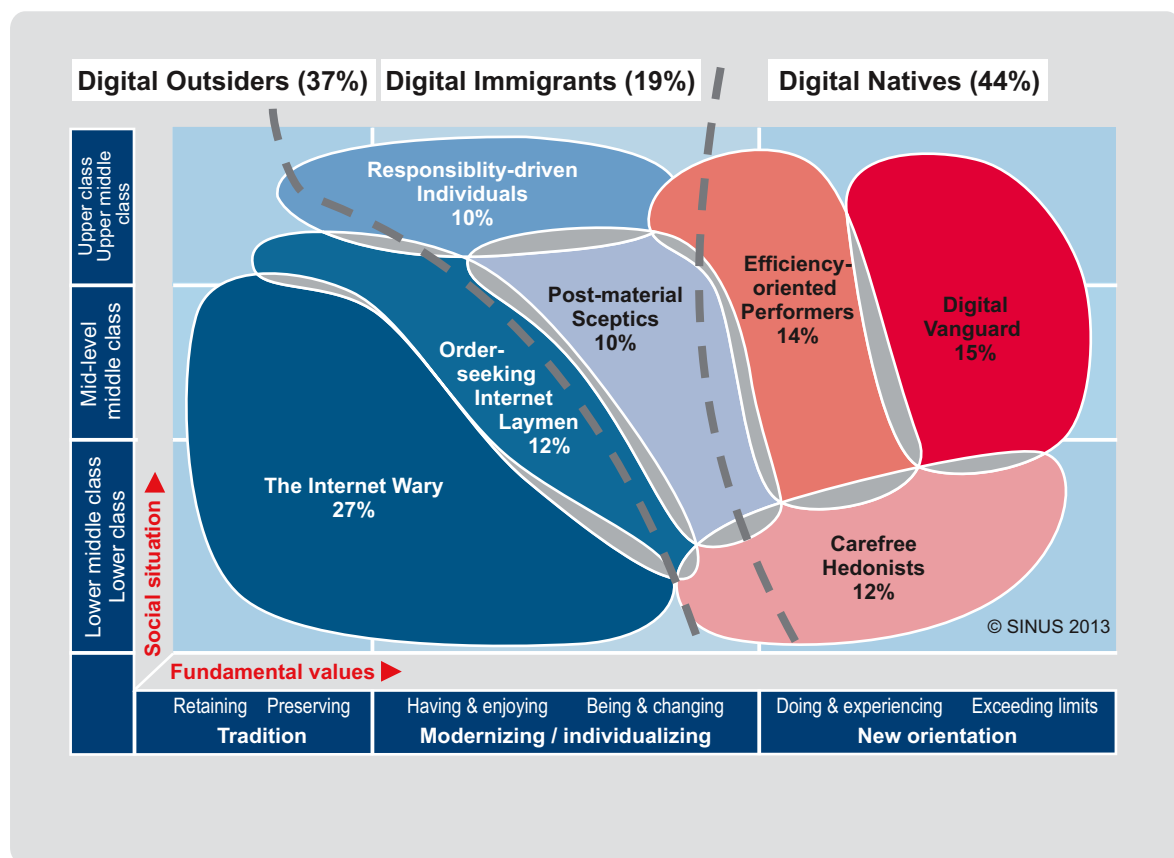
²⁶ The DIVSI U25 Internet Milieus apply to the age group of 14- to 24-year-olds. As we explained above, it is not possible to describe distinctions between milieus and lifeworlds for the group aged under 14, as the lifeworld here remains dominated by the parental home.

²⁷ German Institute for Trust and Security on the Internet 2012: DIVSI Milieu Study on Trust and Security on the Internet. Synopsis. p. 14 ff

corresponding milieu share in the population as a whole. It follows that the lifeworlds of adolescents and young adults marked in blue account for a substantially smaller quantitative proportion compared with the overall population.

Further, the diagrams illustrate that although 14- to 24-year-olds generally inhabit far more digitised' worlds, distinct differences in attitudes towards the Internet remain regardless.

DIVSI Internet Milieus – Overall Population



4.2 The digital lifeworlds that adolescents and young adults inhabit: Profiling the DIVSI U25 Internet milieus

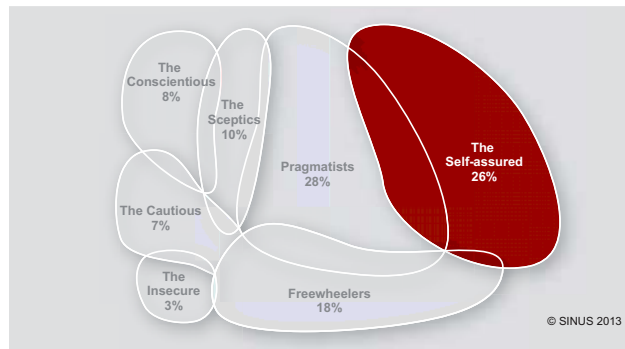
Brief characteristics of the U25 Internet milieus

Freewheelers  <p>Young, experimental Internet users without reservations. Barely any security concerns or risk awareness.</p>	Pragmatists  <p>Performance-focused, ambitious young Internet experts. Self-evidently digitally networked with a penchant for consumerism and trends.</p>	The Self-assured  <p>Young, digital avant-garde with a distinctly individualistic baseline orientation. Searching for independence in thought and action.</p>
The Conscientious  <p>Down-to-earth, security-conscious young Internet users. Moderate networking and consumer behaviour with distinct risk awareness.</p>	The Sceptics  <p>Skilled and purposeful young Internet users with a critical baseline attitude to trust and security on the Internet.</p>	
The Insecure  <p>Overwhelmed and reticent young Internet users with distinct, yet vague, security concerns and an affinity for the analogue world.</p>	The Cautious  <p>Careful, selective young Internet users with distinct risk awareness and low self-assurance when handling risks.</p>	

4.2.1 The Self-assured (26 %)

Synopsis

Young digital avant-garde with distinctly individualist underlying attitudes, a cosmopolitan self-image and an urge for creative design.



Among adolescents, the *Self-assured* are particularly active online. Roughly 16 per cent are even online all day or the whole time (on average, eleven per cent of 14- to 24-year-olds). They make use of the entire spectrum of online offerings, and their use possesses a far greater intensity compared with representatives of all other U25 Internet milieus. These patterns of use correspond with a desire to continually broaden their own horizons. They are constantly searching for new and exceptional experiences. In this the net provides the stomping ground to acquire a wider, international perspective, tapping into inspirational sources for people, locations and marketplaces.



On average, this Internet milieu is somewhat older than the others (40 per cent are aged 20 and older); the gender distribution reveals a slight predominance of young men and male adolescents. The epicentres of lifeworlds are found in post-modern segments and those with higher levels of formal education, also extending into the young, modern middle class.

The canon of values revolves around independence and freedom, mobility and flexibility, creativity and 'coolness'. They desire a lot from life, preferably all at once. Making full use of available time is important; monotony is more of an alien concept, and intense experiences are coveted at all times.

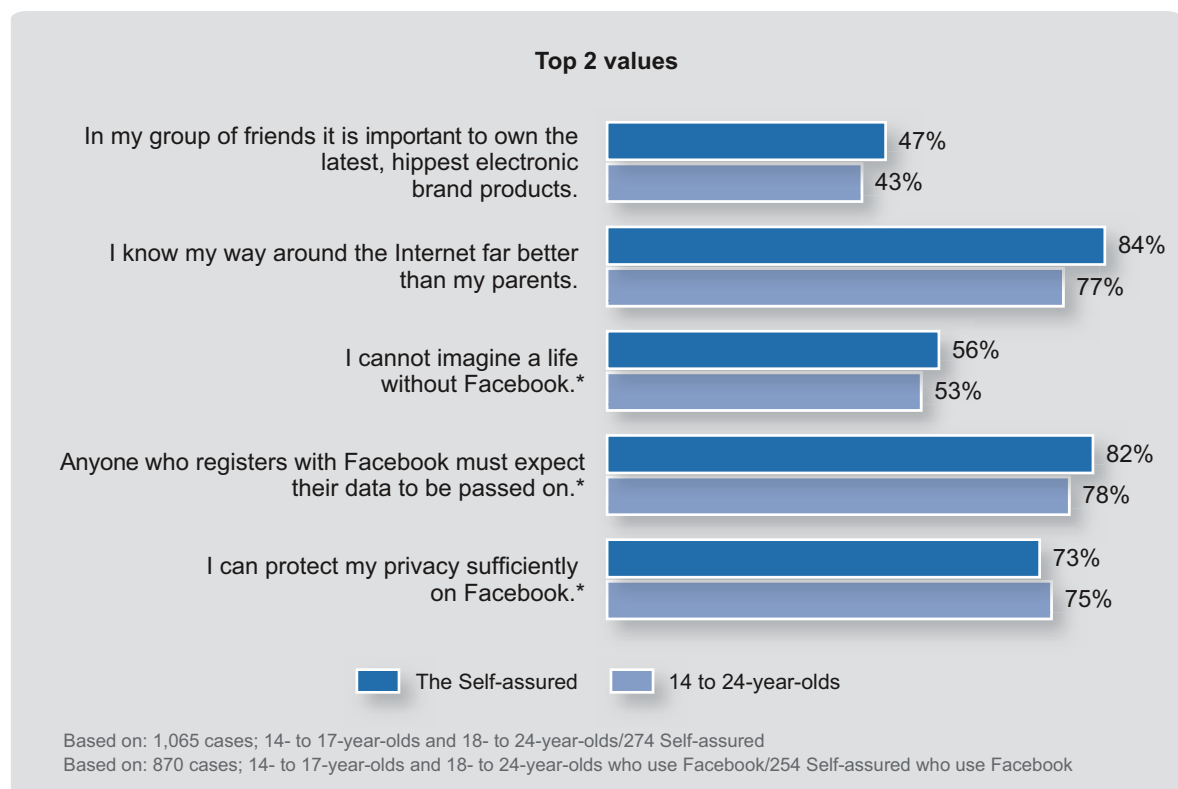
The *Self-assured* are 'cultural omnivores'. They use any means at their disposal to acquire cultural commodities on the network, also more frequently than representatives of other U25 Internet milieus. Illegal, legal or in the grey area – this aspect is more incidental. For instance the *Self-assured* download music from the Internet without paying more frequently than others; but they also buy music on the Internet more often than other young persons. They are clear proponents of a culture of swapping and sharing on the Internet.

They emphasise having their own very personal taste in music, films or literature and hence seek to set themselves apart from the mainstream; they want to rise above the huddled masses, and using cultural taste as a means of positioning is a proven tool. They like to surround themselves with like-minded compatriots, 'creative doers' to match their self-image, and count themselves among the

cultural and stylistic young elite – they show the others what is in, inventing fashion instead of copying.

These nimble-fingered digital networkers are constantly intent on enlarging their circle of contacts: anyone who asks can be a Facebook friend. But they are also the most active managers of digital acquaintanceships. For instance, they make more intense use of the list function on Facebook than all others. Even though they attach importance to self-promotion via online communities, their approach is by no means rash. They make sharp distinctions between contacts that may prove beneficial and those that can be classified as ‘followers’. They are certainly willing to reveal personal data via Facebook and co., but keep a tighter rein than others on who can actually see what.

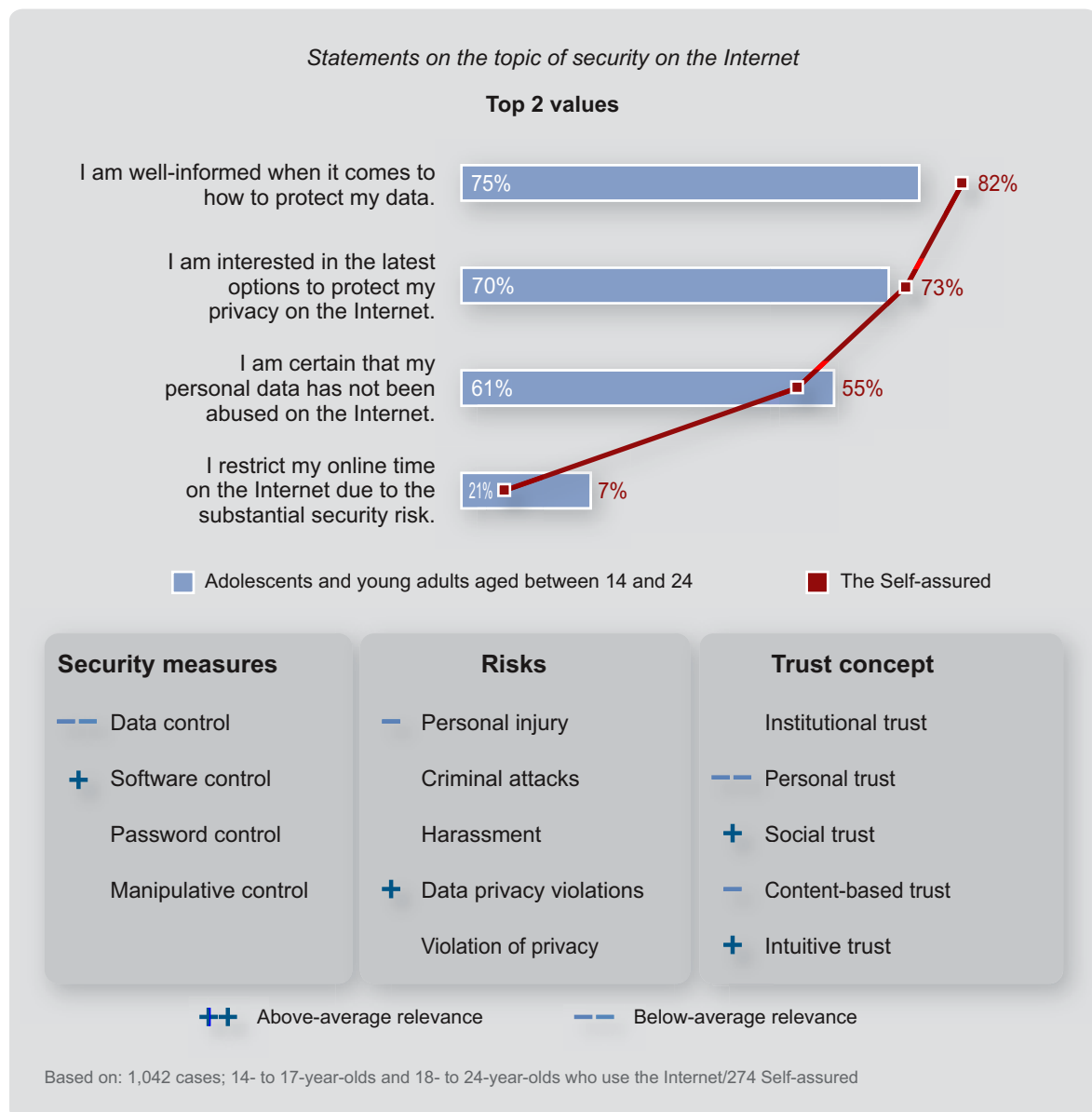
Statements on the topics of media, Internet and online communities



The *Self-assured* are found as experts in many walks of life. Even on the Internet it is clearly apparent how they strive to present themselves as smarter and more competent than the rest. They are familiar with greater numbers of online offerings, including those of an obscure variety, as well as with helpful functions and settings on established websites. Their perception of risk centres mainly around data protection violations. They display less sensitivity towards other risks. Nevertheless, the pronounced sensitivity to violations of data protection is not reflected in any security precautions; indeed, the *Self-assured* decidedly reject active data control. Instead they rely to a greater degree on software controls and technical security measures, instead of restricting their online behaviour. They view the risk of data protection violations as the price they pay for the diverse, uncomplicated and rapid means of network access; and they are willing to pay.

Their perspective on the possibilities of data protection on the net is realistic to matter of fact. They consider themselves well-informed; but this means equally that they are under no illusions when it comes to data abuse. Dangers do not prompt restrictions in their own activities or time spent online; data abuse happens on the Internet and it won't scare them off. In terms of risks and security on the Internet, the *Self-assured* put their faith above all in personal responsibility: everyone has to look after their own data protection and data security. You can't complain if you don't educate yourself. And quite frequently they take their subjective appraisal of personal expertise as the yardstick.

Trust and security



The concept of trust²⁸ among the *Self-assured* exists primarily based on social and intuitive trust – they rely on their own know-how of the network, the online community as a whole and their personal gut feeling. In the eyes of the *Self-assured*, personal trust, e.g. in advice that their parents, teachers or siblings provide, possesses barely any relevance at all. This corresponds with a subjective sense of superiority over their parents when it comes to Internet knowledge.

The *Self-assured* are least able to imagine a future life entirely without the Internet. They hold that the significance of the Internet is rising continuously within both a personal and a social context. Many young people experience this already, especially when transitioning into a university degree course. It goes beyond the professional realm: a private life entirely without the Internet and its options of international networking and means of simplifying everyday life is simply inconceivable. It is impossible to countenance a wide variety of activities without the Internet – why get in line at the box office or unfold the map of a city if you can do it differently?

It follows therefore that even in adolescence, this group perceives the Internet primarily as an information medium. They do not see the future developments merely from a recreational perspective (as concerns options for communication and entertainment), as these aspects may hold diminished relevance in their personal futures. Instead the net is a multidimensional, boundless and sheer inexhaustible realm for learning, living and experiencing.

“They’re not my friends, the people who add me on Facebook.²⁹ As far as I’m concerned they’re just people. I know at least 450 of the people, but look I use it for my own things, for instance to market my stuff. So marketing basically means I post³⁰ things I have created and the people can check it out. The more clicks I get the better. It’s no hassle, but I’m not bothered if there’s 100 people more on the list or not.” (aged 18-24, m)

[On the topic of data protection] “Just take the hundreds of messages; I’ve been on Facebook for almost four, maybe five years. If you ask me no one in the world reads them all. Where would they find the time? I’m sure there are search engines that can process it all, but if you want to understand it you still have to sit some guy in front of it to read the stuff. Nobody is going to go to all that trouble.” (aged 18-24, m)

“If you ask me pretty soon you won’t be able to do anything without the Internet, even at work and that kind of thing. School, too. So the Internet is always going to be right at the centre of life.” (aged 14-17, m)

²⁸ The trust concepts and security measures are results of more in-depth analysis to condense individual statements. Chapter 11 elucidates how the individual trust concepts are put together.

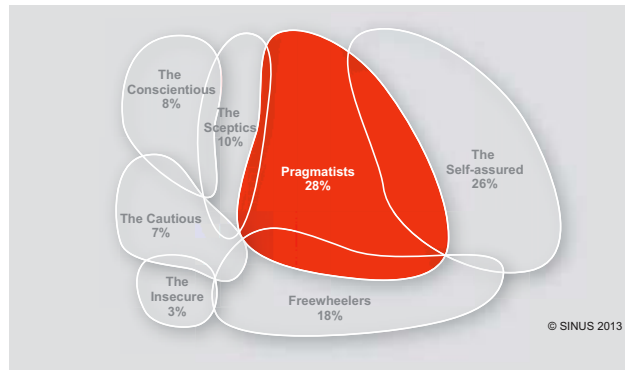
²⁹ Taken from the Facebook prompt to “add” a friend–. Meaning: (in social networks) including a person in a list of contacts.

³⁰ Taken from the Facebook prompt to “post”–. The term finds very frequent use in a context with activities in online communities. The function allows users to publish text, photos, videos and such like on the virtual notice boards of other users or their own profiles.

4.2.2 The Pragmatists (28 %)

Synopsis

Performance-oriented and ambitious young Internet experts. Digitally networked and driven by consumerism and trends as a matter of course.



Pragmatists represent the most sizeable U25 Internet milieu among adolescents and young adults. Male and female adolescents, as well as young men and women, account for approximately equal shares of this segment, as they do in all age groups between 14 and 24. But substantially larger numbers of young people with higher degrees of formal education are found in this group, compared with adolescents and young adults with moderate to low formal education. The epicentre of their lifeworld is located in the modern, middle-class heartland of society, characterised firstly by a distinct willingness to adapt and secondly by an eagerness to perform.



Pragmatists are among the most satisfied adolescents and young adults. Compared with their peers in other U25 Internet milieus, barely anyone finds fault in their relationships with friends and families, their performance at school or their own appearance. This finding blends well with a more liberal underlying orientation based on personal responsibility found among *Pragmatists*. A fitting motto could be: “We are masters of our own destiny!” They insist that if people want things hard enough, they will achieve their goals.

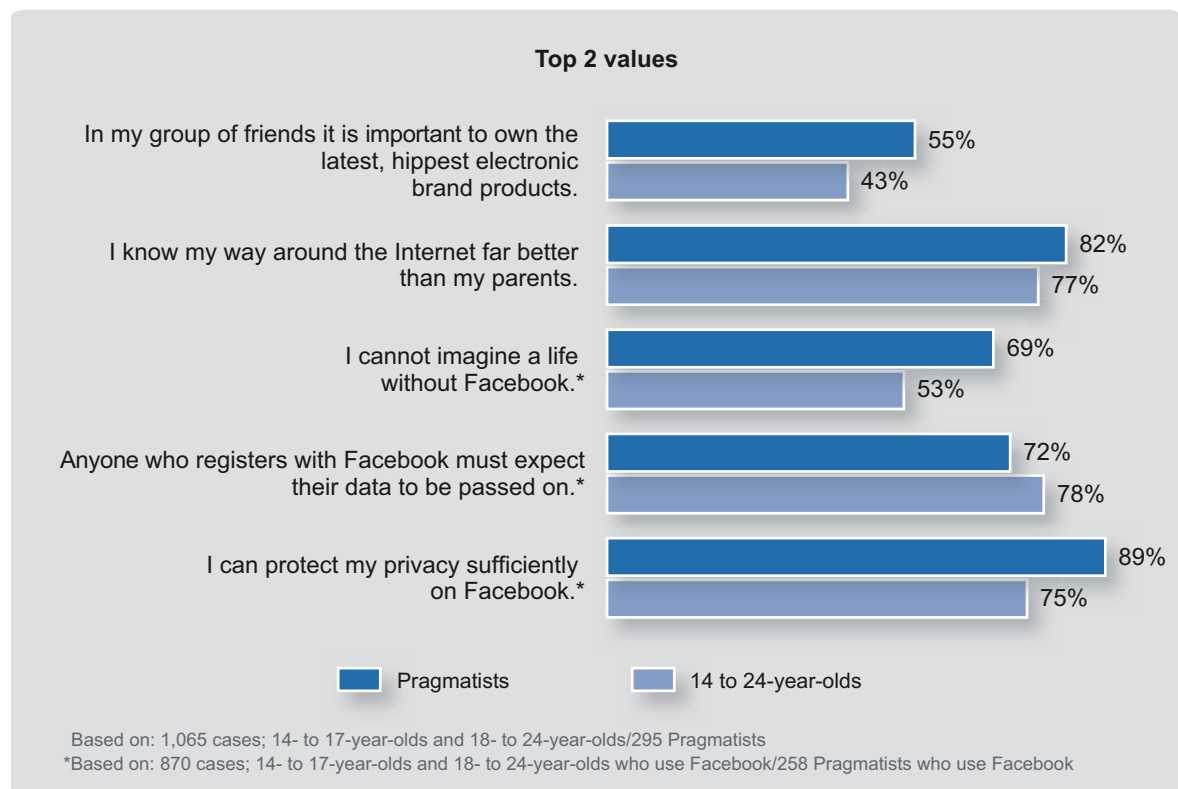
And in this attitude they face up to the challenges that our modern performance-oriented society poses. They define clear goals early on – a fulfilling job, a secure income, a happy family and moderate luxury – and they pursue these goals with discipline. There is much that these adolescents and young adults want to achieve in life, although they focus more on arriving than on progressing. It follows therefore that *Pragmatists* covet a modernised version of a normal middle-class lifestyle, as reflected in their dominant profile of values. Indeed modern and hedonistic values find their place next to middle-class virtues such as punctuality and diligence, trust and down-to-earthness. They want to have fun and enjoy life, crave a high degree of freedom to follow their dreams, at least for a while, and are willing to face up to challenges.

Pragmatists work the Internet as a self-evidence and feel well-informed with regard to dangers and risks. To a greater than average degree they profess to have good to very good Internet skills and most commonly feel one step ahead of their parents. They are online daily, but spend substantially less time on the net compared with the *Self-assured*, whose representatives account for a similarly

large chunk of 14- to 24-year-olds (26 per cent). Their activities are more moderate, and they are not numbered among the intense users. They disport themselves online in a multifaceted manner; but communication, entertainment and consumerism occupy stronger positions than information or education.

They enjoy getting to know new applications and devices in an online context, which they acquire early on. Although not among the trendsetters or 'early adopters', they are responsible for establishing trends in the mainstream. They place significant importance on participation in pop culture mainstream and the trends of modern recreational culture. Pragmatists represent the young, modern mainstream, and decide which trends will predominate.

Statements on the topics of media, Internet and online communities



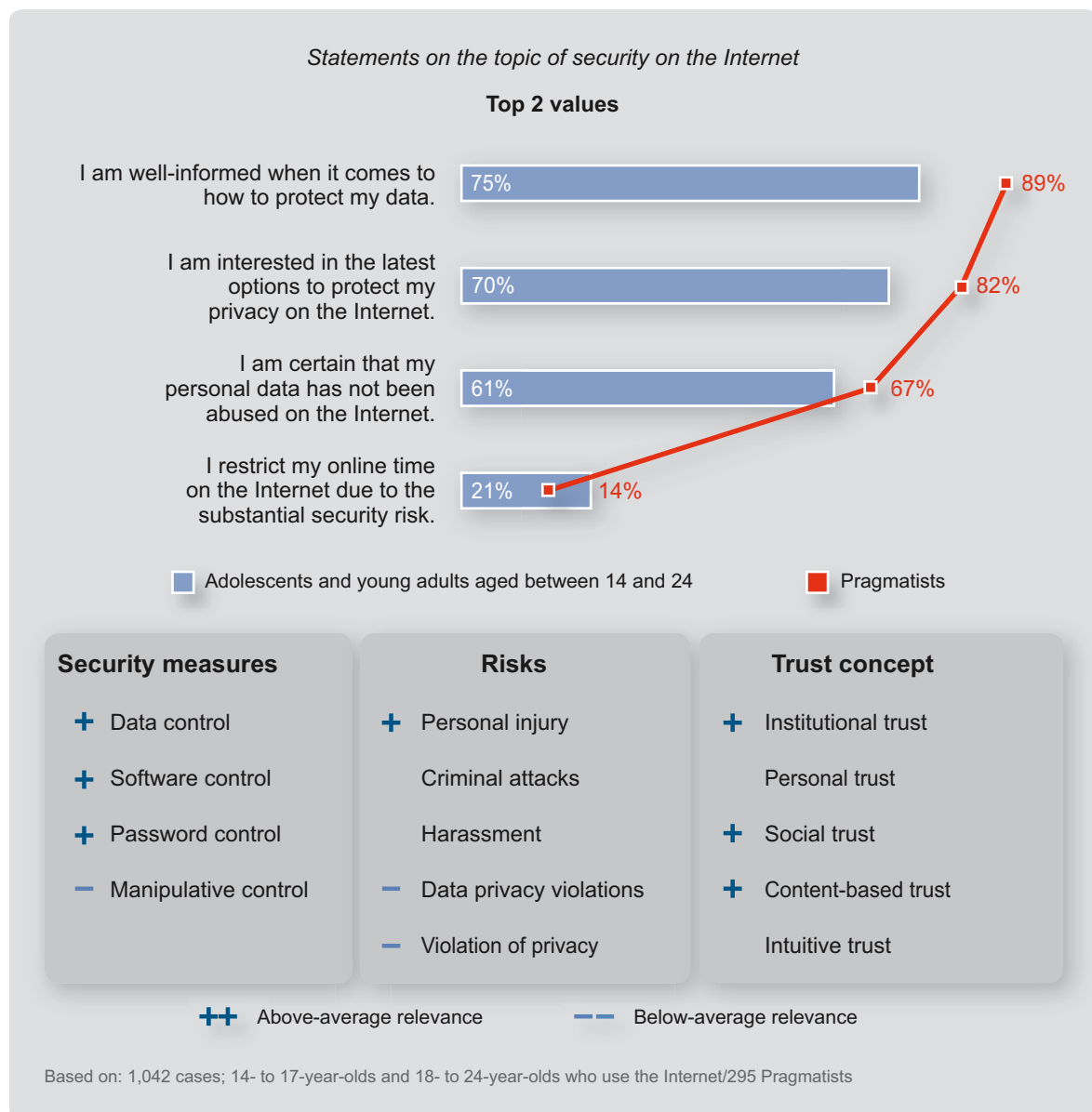
Pragmatists view networking and communicating via online communities, above all Facebook, as a self-evidence. They are least able to imagine a life without online communities. „Checking Facebook“ is as much a part of daily life as cleaning their teeth. But WhatsApp has developed at least an equal binding force and is becoming increasingly popular. Ultimately it is here that adolescents and young adults discover the increasingly rare protected spaces to abscond from the controlling influence of parents and other institutions.

Pragmatists consider themselves well-informed when it comes to the possibilities of protecting data and privacy on the Internet. But compared with the U25 Internet milieus as a whole, their estimation of inherent risks is least pronounced; correlated with the entire milieu they are most satisfied with the options of protecting their privacy offered in online communities such as Facebook. In general,

however, they draw on a broad spectrum of security precautions, ranging from data and software protection to password control.³¹

Pragmatists have faith in data security on the Internet. 61 per cent assume that their data are safe or very safe on the Internet (on average 40 per cent of all 14- to 24-year-olds interviewed). They perceive the greatest risks in personal violations – that is, in an area that cannot be restricted by technical means and that lies outside the scope of personal control. Accordingly, *Pragmatists* see Internet risks as primarily down to ‘the others’. Here we see another emphasis on personal responsibility. Essentially *Pragmatists* make a case that everyone must educate themselves and control their own online behaviour, in particular to avoid endangering others.

Trust and security



³¹ See Chapter 9 for an explanation on the various terms of control.

The concept of trust among *Pragmatists* is structured on institutional, social and content-based trust³² and hence possesses a noticeably broad character.

Even if quite a sizeable proportion of adolescents and young adults as a whole are convinced that their data from online communities will be passed on, the *Pragmatists*, in a comparison of milieus, continue to include a larger share of persons unwilling to accept this truth. In general the *Pragmatists* display a striking level of trust in the Facebook corporation – the highest in a milieu comparison. They agree more frequently than other adolescents and young adults that greater stringency of data protection in online social communities would ultimately lead to greater ennui.

The *Pragmatists* make ardent use of the option of downloading free files (e.g. music) on the Internet. They are pleased to obtain things without paying here and prefer to invest the money they save elsewhere. This milieu includes a comparably high proportion of adolescents and young adults who assume that musicians earn enough money and that therefore there is no need to have a guilty conscience when downloading music.

A tiny minority of those included in this U25 Internet milieu can imagine a future without the Internet. But they do believe that a change in habits and above all opportunities of use is probable and on the cards. They look forward to their everyday digital life with pleasure and excitement.

"I've got it on the whole time. I'm always online with my phone." (aged 18-24, m)

"It's not such a great thing. A bit of a distraction. Maybe you want to do something for school or uni, but then you've got it there, lying open, and someone writes to you and already you're distracted." (aged 18-24, m)

"No phones during meals. And otherwise you're meant to have your phone off at school. But everyone keeps their phones on and so we text back and forth the whole time." (aged 14-17, m)

"At the moment I use Spotify a lot. More the free version. But it's only local; it only works on a computer. So I've got this YouTube converter to carry music around with me or to play it on other devices." (aged 18-24, m)

"I'm always watching it. It's all on YouTube. And if you had the same music on the radio and I recorded it there, I'd still have the same music. It's all the same." (aged 18-24, m)

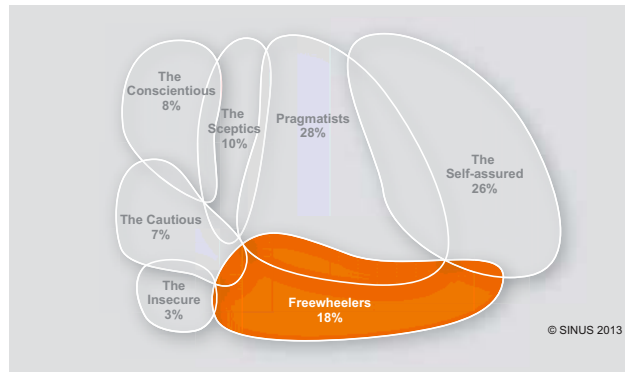
"But if you log on to the dodgy sites like Jamba or whatever, all the things out there, it's clear that most of them come with hidden costs, viruses and other stuff." (aged 18-24, m)

³² See Chapter 9 for an explanation on the various terms of control.

4.2.3 The Freewheelers (18 %)

Synopsis

Young Internet users, keen to experiment and without reservations. Barely any security concerns and awareness of risks.



The *Freewheelers* mainly belong to the lifeworlds of adolescents and young adults characterised by hedonism and low levels of formal education. The proportions of male and female representatives are essentially the same. There is a wide spectrum of ages included in this U25 Internet milieu; broadly speaking there are more 18- to 24-year olds than 14- to 17-year-olds.

Freewheelers are regular and avid users of the Internet: 68 per cent are online daily, twelve per cent are never offline or online practically the entire day. But compared with the average of 14- to 24-year-olds they are more reticent in the assessment of their own Internet skills: A mere 56 per cent (compared with 63 per cent in an overall average) consider their online aptitude good or very good.

At the epicentre of the value profile among *Freewheelers* we find fun, adventure and pleasure. Community, cohesion, respect and prestige are also fundamental values. In contrast, there is a manifest disavowal of commitment and control values such as obedience and order.

Networking plays an important role in the everyday world of these adolescents and young adults –, whether online or off. Accordingly, they are strongly represented in online communities. The other offerings that this U25 Internet milieu uses predominantly involve entertainment and communication. But their net activities display less of a focus on information. A typical feature of these adolescents and young adults is their large network of friends and acquaintances. Generally speaking, friendships are apportioned very high significance in their everyday lives. They are keen to organise themselves in scenes and cliques and clearly prefer company to being alone. A durable, reliable network is appreciated. Knowing a lot of people is considered a prestige factor; so presenting one's own network in a manner that is comprehensible for other people, in other words for it to be materialised in quantifiable terms for the online community, is ideally matched with this need.

Freewheelers enjoy attracting attention. For instance, it is commonplace for them to manifest self-assured, at times loud, behaviour in a public space or to select a particularly conspicuous style of clothing. In some ways this desire to catch the eye translates into the digital realm, as well. For this, online communities are predestined places. Above all they enable a permanent and visible presen-



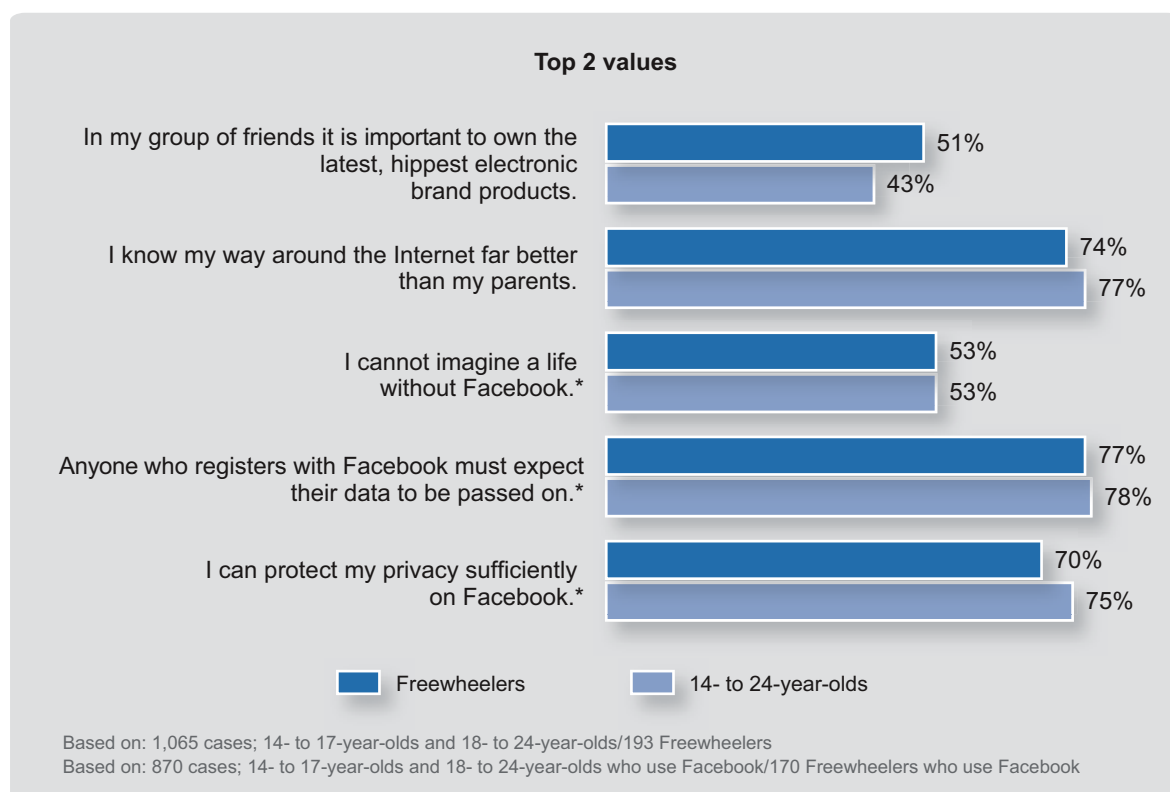
tation of how one's surroundings respond and above all of positive approval. And this is what grabs the *Freewheelers*. At the same time this is a key function of practically all online offerings. Internet is wherever you meet people.

This U25 Internet milieu does not display the most reconstructed attitudes when it comes to questions of legality and illegality. Even "*if you break a law here or there*" –, it can't be that bad because everyone's at it. This legitimisation of one's own behaviour by referring to standard practice is fairly typical of adolescents and young adults when describing swapping and sharing on the net. The aggravating factor for *Freewheelers* is that their tendency to disregard control and authority is married with a strong predilection for taking risks. So breaking the odd law barely registers in their consciousness. Moral dilemmas are more or less alien to *Freewheelers*.

Hence it comes as no surprise that their knowledge of the precise legal status concerning online swapping and sharing is quite threadbare. They assert that if something is technically feasible, it should also be permitted. And when *Freewheelers* distance themselves from swapping and sharing, then only because they fear the sanctions that might ensue. Copyright is like a foreign language. Instead they are convinced that successful musicians "*don't need the money anyway; they're rich enough as it is.*"

But the insouciance that characterises their relationship with trust and security on the Internet most certainly does not apply to other areas of their lives. Their momentary satisfaction with life is lowest of all U25 Internet milieus. They are more dissatisfied with their relationships with friends, parents or with their personal freedoms than almost all others, although this is also due to the high standards they apply to a 'presentable' circle of friends and from which they draw substantial self-assurance. It follows that for these frequently most ephemeral young people and their disposition towards entertainment and consumerism, the Internet or life online delivers an attractive, alternative world in which communication and networking are sometimes easier. Additionally, this U25 Internet milieu experiences scant parental or other control, as most commonly they do not encounter their parents in the online world.

Statements on the topics of media, Internet and online communities



The recklessness and insouciance of this U25 Internet milieu are manifest primarily in their attitudes towards risks on the Internet. In consequence, the risk dimensions we asked about are almost irrelevant in this milieu. Criminal attacks, harassment, data protection violations and privacy violations are not among the pertinent risks here. While 62 per cent believe that the topic of protecting one's privacy on the Internet is important, the figure nevertheless remains below average for their peers (70 per cent).

The concept of trust among *Freewheelers* is centred on content, meaning they rely on a simple system defined by properties to distinguish between safe and unsafe Internet pages: you can lose money on pages with loads of pop-ups, and on some you may even end up purchasing something unintentionally.

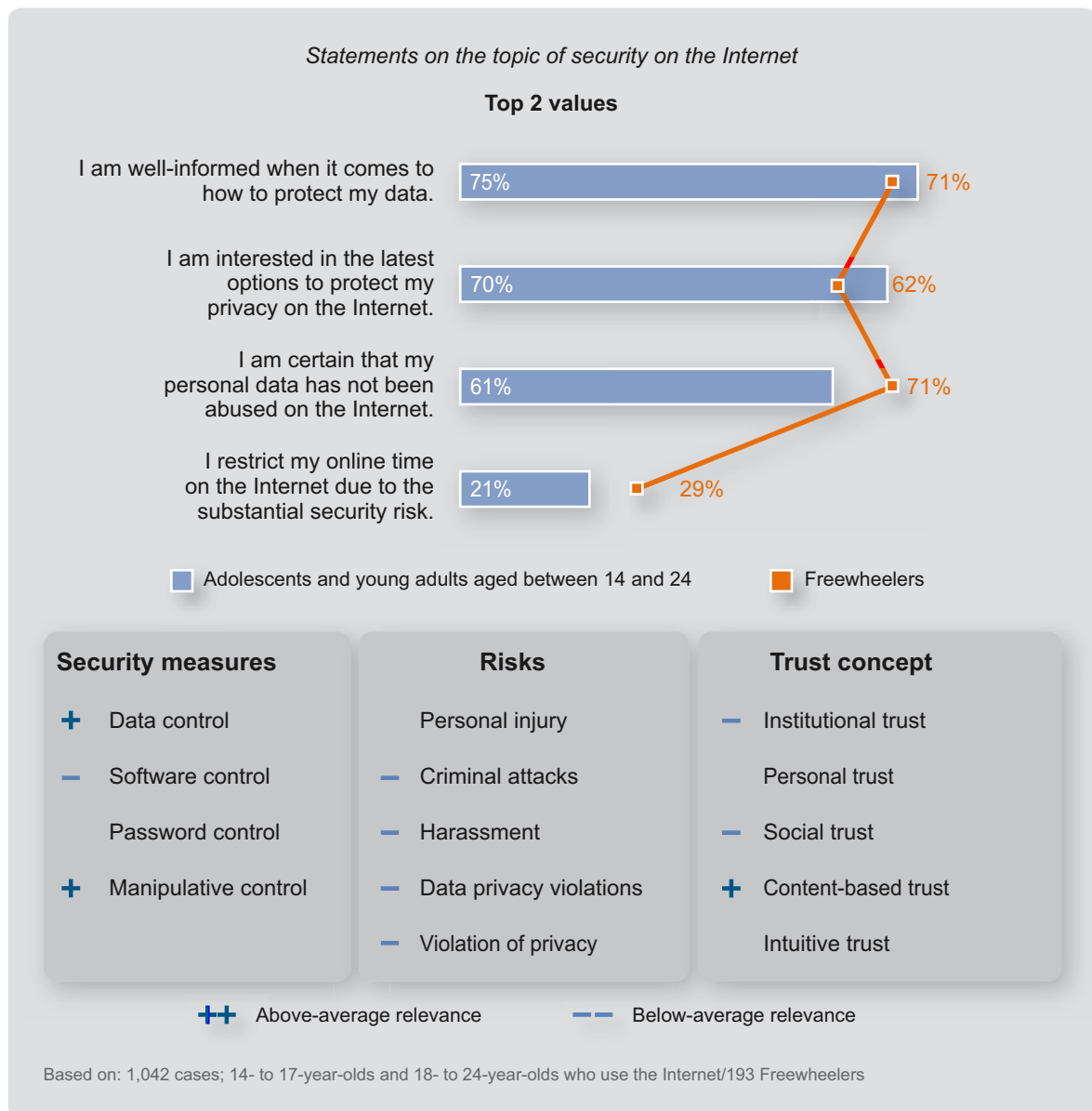
Their security concepts – if they even exist – focus on controlling their own online behaviour: to control their data they are more likely to eschew uploading and downloading files, albeit with great reluctance. In contrast, they tend to reject or leave unused any technical security measures when it comes to software control (virus scanners³³, firewalls³⁴, ad blockers³⁵, regular updating of security settings on the online community platforms).

³³ A virus scanner is a program that scans a computer to detect viruses or other harmful programs.

³⁴ A firewall is a security system that protects a network or individual computers against unwanted attacks via external data channels and the Internet in particular.

³⁵ The term ad blocker stands for advertising blocker. It removes advertising from a website. There are different kinds of advertising on websites, among them images, animations, texts and pop-ups.

Trust and security



And it is the typical tendency among *Freewheelers* to experience the Internet with a marked focus on entertainment that gives rise to the views they hold concerning its future significance in their own lives: many are convinced that the Internet will become less important for them in future. The Internet is experienced as a ‘youth thing’ or pastime, one that will lose its place once they have a job and their own family. This assessment hardly comes as a surprise if we consider the professional lives most typically envisaged in these lifeworlds, which centre frequently on labourer or trade professions that do not involve computer work or Internet connections. Nevertheless, they already use digitised services such as online banking and shopping; hence it appears likely that the future, as it unfolds, will be more digitised than the *Freewheelers* are currently able to envisage.

"Sure, embarrassing stuff is always uploaded. Embarrassing situations, that sort of thing. You laugh about it with friends on the net. That happens constantly." (aged 18-24, m)

"I can use the computer and the Internet at the same time. They're the same thing." (aged 18-24, m)

"Actually you can watch TV, go online and talk on the phone at the same time, you know. You've got your headphones on; you're chatting on WhatsApp; and at the same time you're watching TV." (aged 18-24, f)

"I think that then the Internet will (for the personal future) not be as important as it is now. I think I'll have a job then, my own family. And I won't sit around the whole time on the computer or using my phone." (aged 18-24, f)

"I pretty much text and listen to music all day, with my phone, (laughs) and yes, it is my main activity; then come gaming and the Internet." (aged 14-17, f)

"As I said...you can't get round the Internet." (aged 18-24, f)

4.2.4 The Sceptics (10%)

Synopsis

Resolute young Internet users with a critical attitude towards trust and security on the Internet.

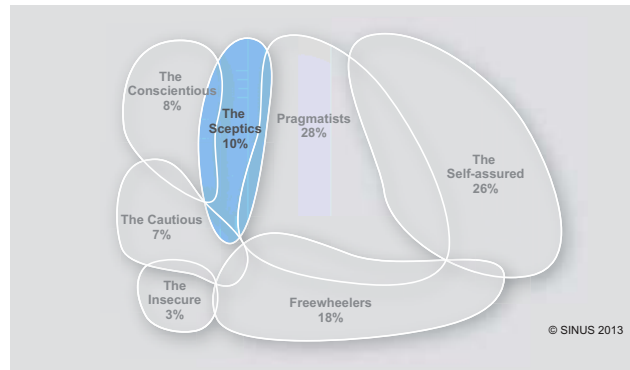
Sceptics account for only a small proportion of young Internet users; the main focus of their lifeworld is found in the Socio-Ecological segment, extending into the Conservative-Middle class segment. On average, this U25 Internet milieu displays a higher level of formal education; there are even numbers of adolescent and young adult age groups.

Justice and equality, democracy and education, and tolerance and charity characterise their value profile. *Sceptics* are keen to voice their own opinions: these adolescents and young adults are imbued with a strong sense of mission and are pleased to adopt the role of opinion leaders. In consequence they are occasionally perceived among other U25 Internet milieus as admonishers and naggers, insisting on political correctness or on separating waste, exhorting others to ride bicycles or criticising the markets.

They tend to engage in traditional forms of recreational pursuit in their free time: they are members of sports clubs, boy scouts and girl guides or involved in the church or in environmental, welfare or political concerns. In cultural terms the *Sceptics* maintain a broad spectrum of interests. Their enthusiasm for high culture such as theatre, museums and classical concerts sets them apart from the lifeworlds of other U25 Internet milieus. This also stems from the milieu in which their parents are at home, which promotes exposure to these kinds of offering at a tender age. It follows therefore that the *Sceptics* are not among the trendsetters in the younger generation's pop culture scenes.

Sceptics use the Internet regularly and with self-evidence, but with slightly lower daily frequency than the *Self-assured* or *Pragmatists*. Although their use is multifaceted, they are under-represented when it comes to activities such as shopping or gaming. Equally, "chilling", "chatting"³⁶ or "checking Facebook" are among their less popular pastimes compared with other U25 Internet milieus.

Their subjective Internet skill is approximately mid-table. Although *Sceptics* manifest less self-assurance than the *Self-assured* or *Pragmatists* in this respect, they do perceive themselves as substantially more skilled than the *Cautious* or the *Insecure*. And even though *Sceptics* are keen to adopt the guise of experts, they retain a certain reserve when it comes to the appraisal of their own Internet



³⁶ An Internet term meaning online, real-time communication on pages. It is a word used frequently in connection with online conversations.

competency. Compared with others, for instance, *Sceptics* less frequently feel well-informed concerning the methods of protecting their data on the Internet. Nevertheless, roughly 57 per cent consider themselves well-informed or very well-informed.

These young persons perceive informational deficits more as inherent problems found within Internet topics than as a product of their personal ineptitude; they attribute to these topics a complexity that in their view barely anyone can fully understand. Hence they believe, more frequently than others, that it is not possible to truly become informed when it comes to security on the Internet. Additionally, roughly half of all *Sceptics* concur that since news of the broad-based covert services operations on the Internet broke, their personal sense of security has deteriorated. So for 35 per cent of *Sceptics*, and consequently a relatively substantial number, the perception of a security risk is sufficient reason to restrict their personal online time – compared with the overall average of 21 per cent.

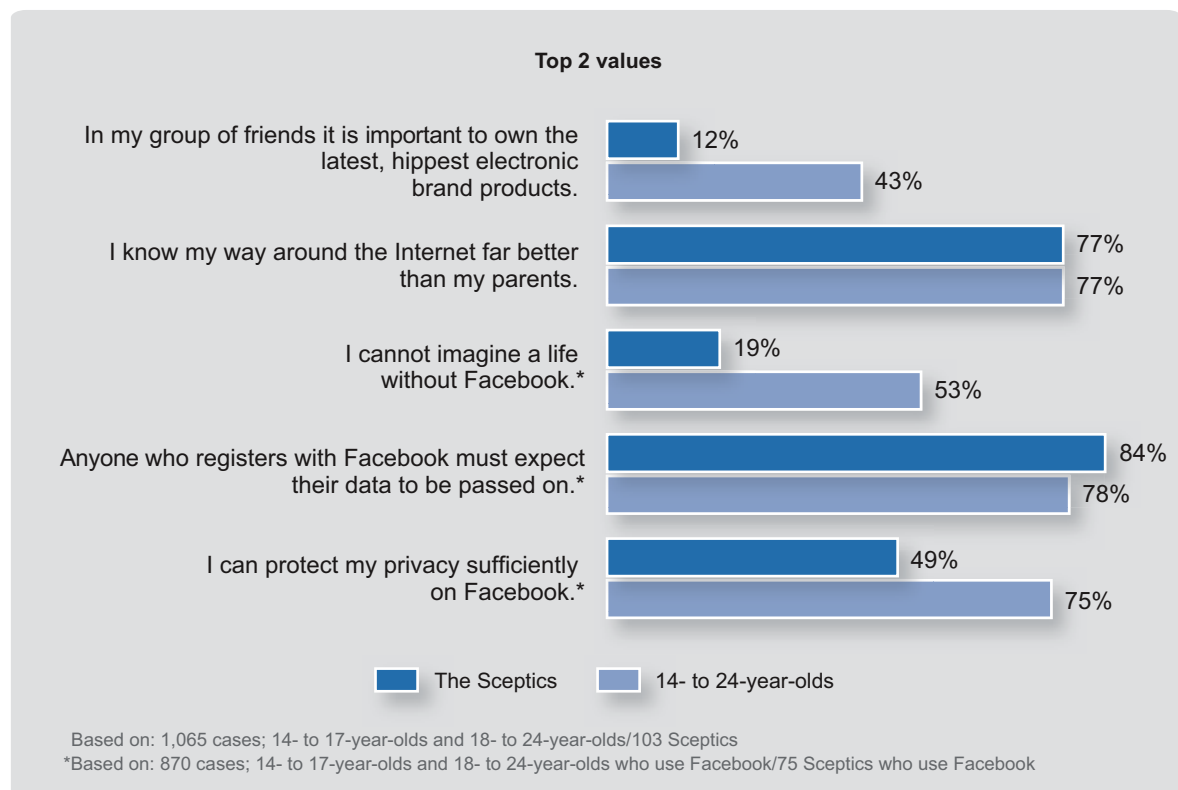
This U25 Internet milieu pays scant attention to brand products. And the belief among *Sceptics* that consumerism should not be unnecessarily stoked any further simply due to putative trends extends beyond the scope of mere electronic devices. From time to time they are pleased to do without something in order to protect nature and its resources, as well as to lead by example.

Compared with the milieu as a whole, *Sceptics* retain a certain reserve when it comes to current music and films available for free on the Internet, apportioning greater significance to questions of legality and illegality than others in the same age group. Their belief that copyrights should be respected concurs with this perception. Only very few of them posit that the wealth of artists justifies downloading their songs on the Internet for free. *Sceptics* are more likely to be explicit proponents of copyright – and are frequently attuned to the relevant definitions, which in itself sets them apart from many of their peers.

Sceptics maintain a certain distance when it comes to online communities: “naturally” they can imagine a life without Facebook. The reasons for using these offerings tend above all to be practical. In their eyes Facebook has practically no role as a place of self-presentation or a stage; instead it is a tool to help organise. *Sceptics* are also among the more moderate networkers. Their main focus, also with far greater frequency than others in corresponding age groups, is on people they know personally. They belong to the U25 Internet milieus with the greatest levels of mistrust towards Facebook. In their eyes the corporation’s profit-seeking activities and the inclination towards voyeurism hold far greater prominence than any individual benefit.

And the tendency we have already seen in attitudes towards online communities becomes even more distinct when faced with the security of personal data on the Internet. *Sceptics* are inclined to feel pessimistic in this respect. Only eleven per cent (the age group average is 40 per cent) believe that their data are secure on the Internet.

Statements on the topics of media, Internet and online communities

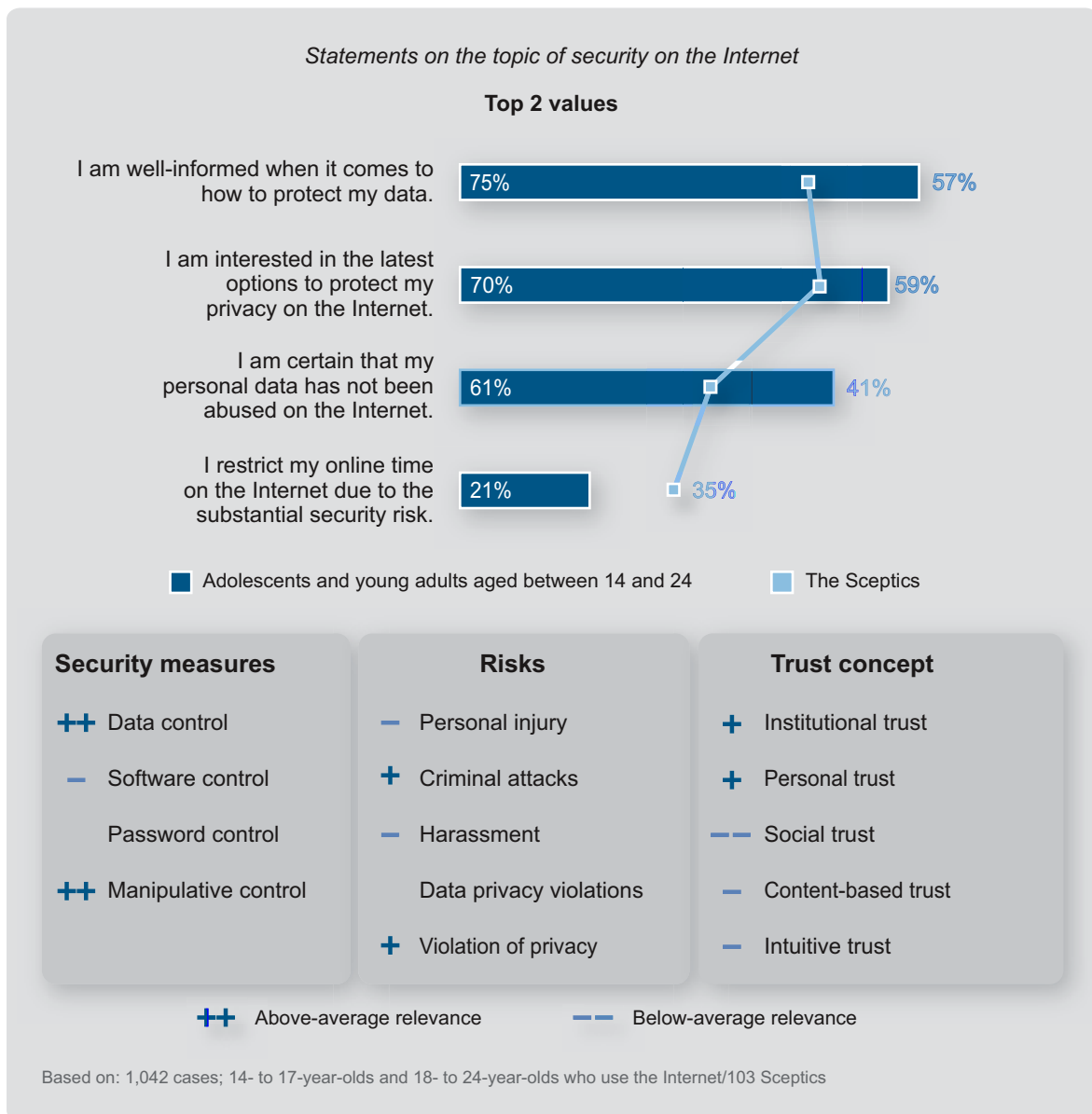


The perception of risk among *Sceptics* is focused primarily on criminal attacks and violations of privacy. They apportion personal injury and harassment a more marginal role. But they tend not to rely on software, that is technical solutions, when it comes to the security mechanisms they apply; instead they use noticeably strict data control and manipulative control (e.g. erroneous or misleading personal data) in particular. So *Sceptics* trust primarily in mechanisms that they themselves control or can apply according to their own measure.

As we have seen already, these young people maintain a strong interest in the common good. Many of their recreational pursuits possess an altruistic character – and are found in the range of standard volunteering or involvement. Hence *Sceptics* have a more distinct tendency than others to call for binding rules and controls to protect users and rely to a lesser extent on personal responsibility in managing risks on the Internet.

Moreover, they perceive the users themselves as a weak link when it comes to security on the Internet. In their trust concept they assign the lowest rank to social trust; indeed council from friends is considered not at all reliable. Equally, *Sceptics* would never consider simply responding intuitively to the design of a certain page. They hold that one relies on institutions and the council of a small group of trusted persons in the family or among teachers.

Trust and security



But despite all their concerns, the young *Sceptics* cannot imagine a future without the Internet. Their call for rules and protective mechanisms for the digital realm is more vociferous than among others. They do not perceive the net as an entertainment and communication offering, but as a social realm that requires structuring, that must be perceived critically and experienced attentively.

"Well I've got an e-reader. Mainly I got it for uni, for the reading I have to do there. I know how I am. I don't read every single text. And so I was never entirely certain: should I print it out now or not? And I read somewhere that above 4,000 pages an e-reader is more environmentally friendly, as well as being economically better. So basically I thought I'd get one." (aged 18-24, m)

"[...] then you've got the electricity it eats up. Books work without power. Our whole world is heading straight for some massive power failure. It was always things like that if a high culture collapses, whether it was the Incas, the Mayans, the Chinese or the High Egyptian Culture. Things like this were always behind their downfall." (aged 18-24, m)

"I think it's got a lot to do with showing respect to an artist. I mean if all you do is download the stuff, how are they meant to live?" (aged 18-24, f)

"Absolutely no way would I upload stuff to Facebook or Studi-VZ or any other of them; I don't use WhatsApp, none of them. First of all they're things where all the data get stored; I mean the whole net is this massive sponge: it absorbs everything; nothing gets crossed out. And the problem is that with many things data protection is really just being perverted so that you don't even own the rights to your personal stuff." (aged 18-24, m)

"Well I always make sure I read the privacy policy. And wherever I register, the terms are such that I can fairly say: I can cope with it. But Facebook is just a heap of shit, and if you ask me Myspace is worse." (aged 18-24, m)

"Apart from that I basically only use Facebook to write PMs and in groups; I don't post anything to my Timeline; I don't think I've written on one in ages. The only reason it's there is to ask: when are we meeting? And usually the best place to do that is Facebook." (aged 18-24, m)

"Google really gets my hackles up. You know, the way they want to store all my searches and crap like that. It gets my hackles up." (aged 18-24, f)

"Baseline is I don't trust anything. Sure, a certain distrust is always there in today's world." (aged 18-24, m)

"I'm not at all interested in mobile phones. I talk on the phone, send text messages. Actually I talk more often than I text. But I'm not all that interested in mobile phones. And I don't own a smartphone myself [...]." (aged 14-17, f)

"It's through pages like Facebook that we are losing these rights. Through them we're simply giving the rights away." (aged 18-24, f)

4.2.5 The Conscientious (8%)

Synopsis

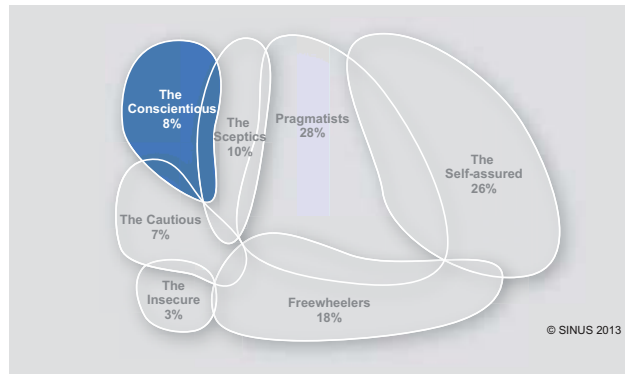
Down-to-earth, security-conscious young Internet users. Moderate networking and consumer behaviour with a pronounced awareness of risks.

The *Conscientious* young Internet users are predominantly at home in middle class-traditional environments. There is an almost even distribution of male and female adolescents and young adults in the U25 Internet milieu. Those aged under 16 and over 20 are found more frequently than the age group between 16 and 20.

In general they display an averagely regular duration and frequency of use compared with other adolescents and young adults. Even if they move cautiously through the net, their everyday lives are digitised. 62 per cent are online daily (compared to the average of 71 per cent). In this their surfing habits are selective. It is atypical for this group to simply drift through the net.

This U25 Internet milieu tends to distance itself from the hurly burly around the latest electronic brand products. We see this reflected in the less distinct lifestyle orientation among these adolescents and young adults: they don't always need the newest gear or the 'latest craze'. Their strategy is first to check what others are up to, then to decide. They are largely uninterested in using their outer appearance as a means of self-presentation or to move within defined youth culture scenes. These young people are prone to rely on what they know and what they've tested. The *Conscientious* seek orientation in familiar structures and environments and seek out routines that unfold in a manner they feel is dependable. Traditional virtues predominate in their value profile, among them order and control, obedience and honesty, justice and fairness, responsibility, discipline and reliability. This is equally apparent in that they seek less distance from their parents, viewing them instead as partners and role models in many areas of life.

Growing organically and firmly anchored in their lifeworlds, the respect they feel for existing laws and rules tends to prevent them from engaging in clearly illegal or legally dubious Internet activities relating to swapping and sharing. They are far less likely than their peers to approve of casual uploading and downloading of files and make less frequent use of the opportunity to acquire cultural commodities (films, music, TV-series) without paying. Questions of security and copyright are more important for the *Conscientious* than is the case among other U25 Internet milieus.

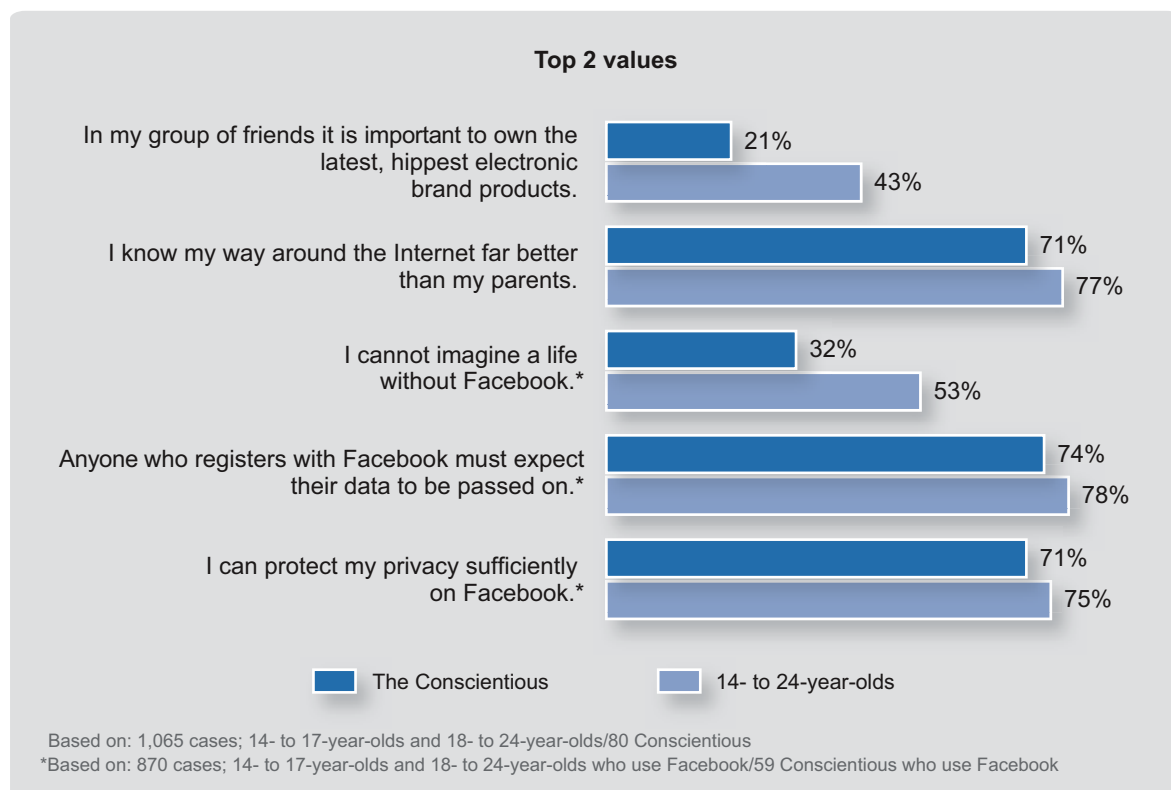


Unlike other U25 Internet milieus, they are 'lacking' in the intrinsic motivation to act as online poachers of cultural assets. In their appreciation of art and culture these young persons display a propensity for the traditional and are more distanced in their attitudes towards the new and experimental; they tend to embrace new music, films or TV series once they have already arrived in the mainstream.

The *Conscientious* manifest significantly greater distrust toward Facebook than the other U25 Internet milieus. The more dominant characteristic of their networking behaviour is reticence – they reject the casual exhibitionism and voyeurism that are commonplace among online communities. They are among the advocates of 'controlled fun'; they do not share the opinion that Facebook would be more boring if everyone were to tighten security when it comes to their personal data. The *Conscientious* hold that protection of private data does not begin with delicate and/or intimate information; instead it extends equally to details such as home town or telephone number.

When networking they are more concerned to represent their offline contacts in an online setting than to establish their own circle of online friends. It is typical also that the circle of friends that the *Conscientious* maintain will preserve a stronger form of analogue organisation. Even without Facebook they know what's happening with the others. Non-users of Facebook are also found more frequently among the *Conscientious* than in other U25 Internet milieus. These young people place a lot of stock in communality; but what they are looking for are authentic and immediate experiences and places in which they can entirely be themselves. Their interest in presenting themselves to the greatest possible public applause is paltry. They are entirely unconcerned with showcasing their circles of friends in quantitative terms, in other words to collect as many Facebook 'friends' as they can. Quite the opposite. They emphasise their intention of concentrating on their close friends.

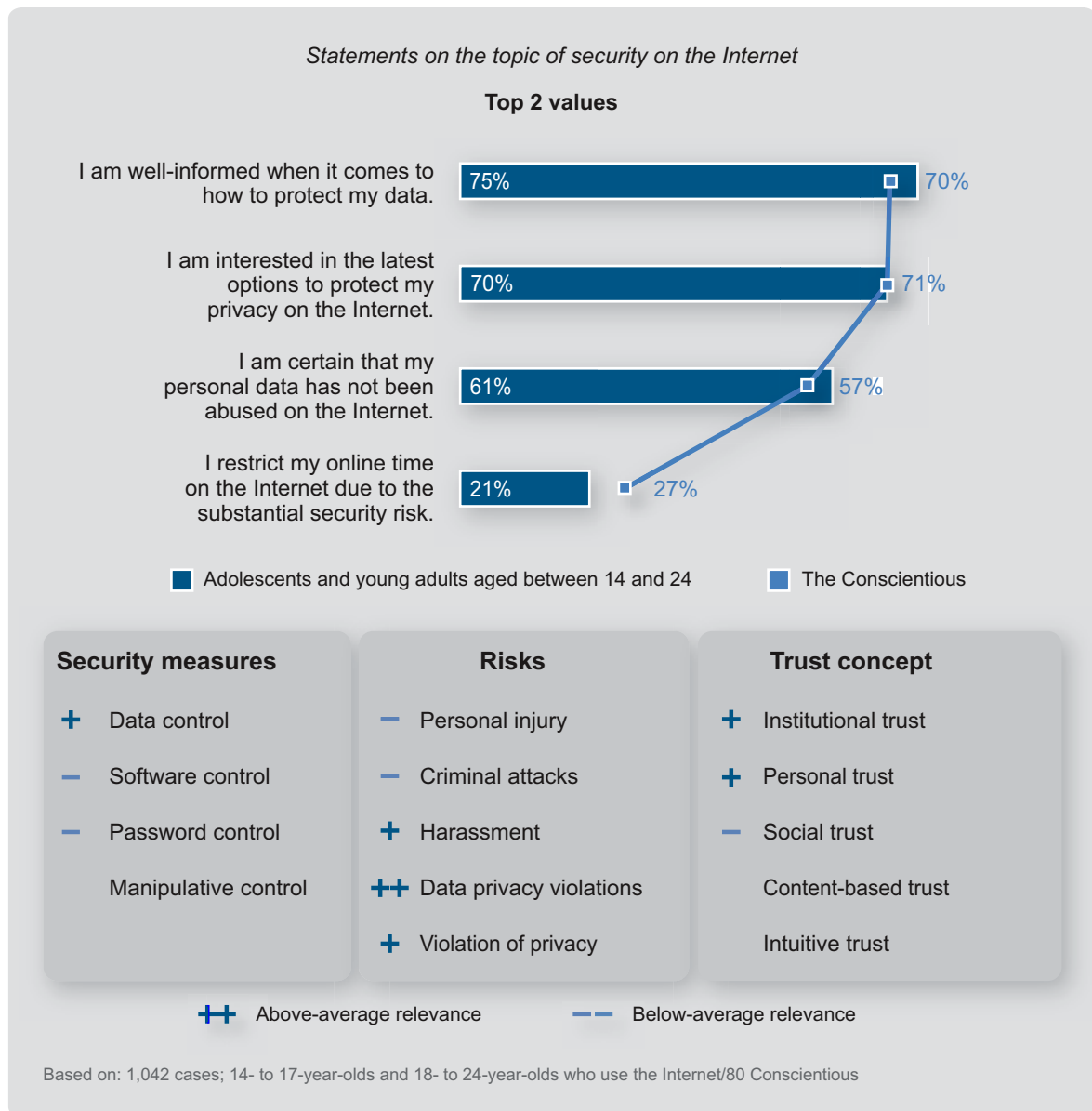
Statements on the topics of media, Internet and online communities



Hence and in general, the *Conscientious* are strongly sensitised when it comes to Internet risks: they view violations of privacy, harassment and in particular data security as relevant personal risks. But in terms of their use they do not permit the net dangers to scare them off entirely; instead they advocate a consistently conscientious approach. This does not mean that they are more familiar with the security mechanisms, though.

They predominantly perceive the responsibility for data protection and data security to be a matter for the state and the website operators. It follows that institutional trust occupies a relatively high standing within their trust concept. They call for binding rules and a clear framework of orientation. The *Conscientious* hold that an attitude of relying on the opinions of friends is an uncertain undertaking – and who knows whether they truly are well-informed.

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Considering their security concerns, it is barely surprising that the *Conscientious* take a dimmer view than other adolescents and young adults when it comes to the probability of consistently digitised everyday life: a mere 20 per cent agree that it will no longer be possible in future to be entirely offline (average for the age group is 32 per cent).

"I really don't know what profession I'm looking for. But I know for certain is that I want to have something solid in my life so that I can offer my family a decent lifestyle." (aged 18-24, f)

"Set up my own family later on." (aged 18-24, f)

"I do want to have a secure income." (aged 18-24, m)

"I don't use those download portals at all. I'd be somehow scared that the police would get on to me. But I've never actually used them, never even looked at what they're about. And that's why." (aged 18-24, m)

"Well, I have to admit I don't really know all that much about download portals. I'm not even entirely sure what they are. And I don't have any hassle because I've never looked into them or checked them out." (aged 18-24, m)

"And so if your friend tells you that it's legal because he's never been caught and really has no idea himself...well, what can you say?" (aged 18-24, m)

"I have to admit I own practically zero apps. So I've got the two apps WhatsApp and Facebook and...oh, I've got YouTube and the HVV [public transport]. Apart from that I've only got, I don't know how many games. But I pretty much never play them. And that's the limit for me. Maybe more Amazon and Ebay; but that would be all." (aged 18-24, m)

[Facebook friendships] "If I get a request and I see I don't know them I'll ask every time: 'How do we know each other?' And at that moment he or she has to remember me because otherwise they wouldn't send me a request." (aged 18-24, m)

"I don't post any photos of myself. And that's why it never really happens that I have to ask someone. It's not really my thing. I don't like putting up photos of myself." (aged 18-24, f)

[Privacy settings on Facebook] "I really don't want to be bothered with all that. What I want is to have it to maybe text with people or to check what happened if it was someone's birthday, that kind of thing; if someone's posted a few funny photos. Apart from that I don't need it at all. And I don't want to hassle myself with it, all the settings and what have you." (aged 18-24, m)

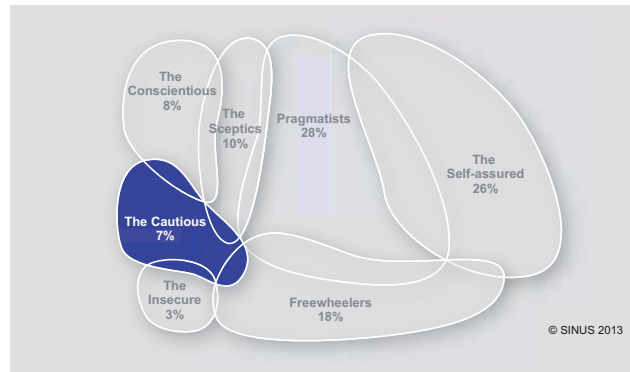
"But I do think it is important, because of what we've talked about here, that we do add acquaintances that we met here. I don't really want people to have, let's say, my telephone number and maybe play pranks with it. Maybe someone calling me at 3 in the morning to say 'hey'?" (aged 18-24, m)

4.2.6 The Cautious (7%)

Synopsis

Prudently selective young Internet users with pronounced risk awareness in dealing with dangers.

Roughly seven per cent of Internet users aged between 14 and 24 can be considered primarily cautious in the manner that they handle the Internet. Their sensitivity to putative risks that the Internet poses is so finely-tuned that it impacts on the intensity of their use – compared with the average merely around half of them go online on a daily basis and roughly 40 agree that they restrict their online time due to the substantial security risk the Internet poses (21 per cent on average in this age group). The *Cautious* are among the ‘invisible’ Internet users and are in places distinctly under-represented in all applications centred on communication and entertainment (e.g. Facebook, IMs chatting, YouTube).



This U25 Internet milieu is made up of all age groups and extends across all levels of formal education. But the focus of their lifeworld is clearly found in a middle-class environment and hence in a more traditionally structured segment. The subjective satisfaction with life found in this group is mid-table; there are no distinctive areas of conspicuous satisfaction or dissatisfaction. Their motto could just as well be: “Everything’s fine the way it is.” In terms of the basic standards they uphold, they display strong similarities to the *Conscientious*. They profess affinity for values related to family, traditional awareness, thriftiness and duteousness, cohesion and affiliation. In many things these young people inhabit the fringes more than seeking the spotlight, acting as observers rather than shapers. In places their designs for the future are markedly similar to the biographical template their parents provide. They feel drawn to a life within clear structures, without eccentric prevarications or experimentation. They are clearly oriented towards home life and less mobile in terms of education or launching a career.

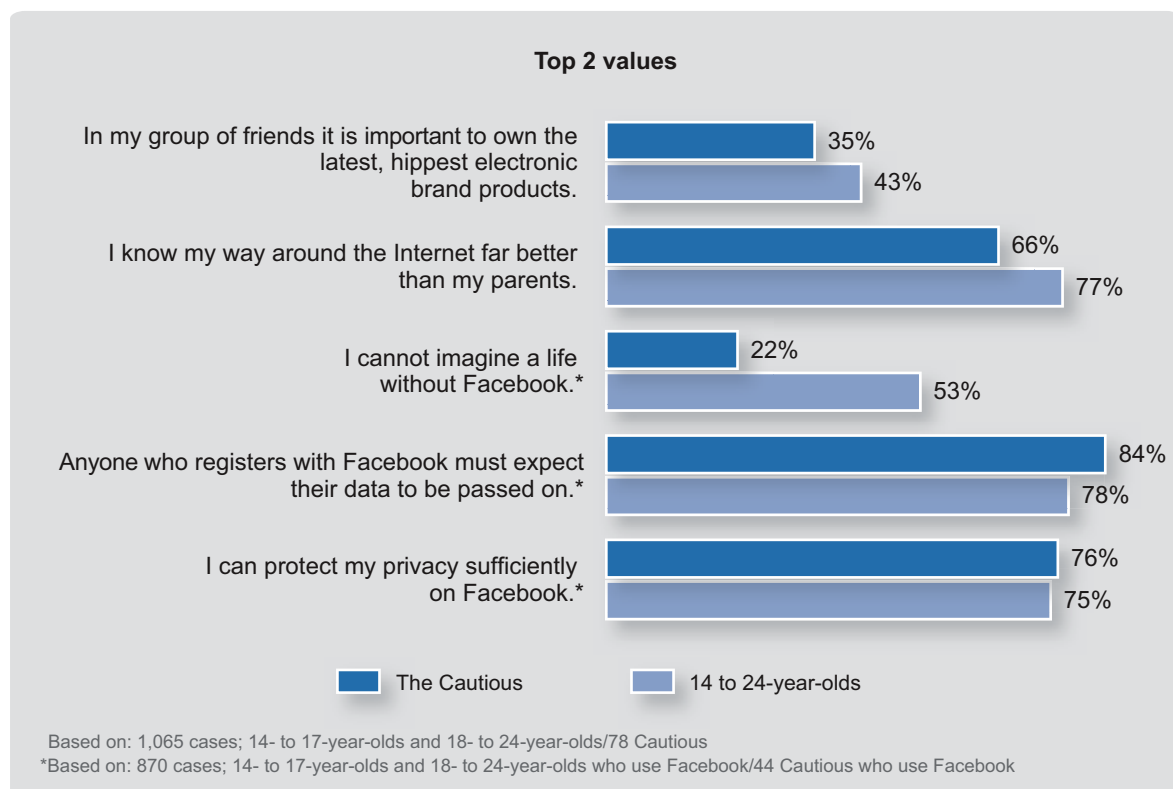
Their participation in popular youth culture is insubstantial. Above all they attribute scant relevance to the digital status markers – profiles in online communities, uploading selected pictures and active showcasing of the own personality or the ownership of electronic brand products. They frequently perceive these areas to be excessively transient and overly superficial. Here the *Cautious* display a penchant for quiet withdrawal instead of outspoken criticism.

Although most of the *Cautious* have a profile on Facebook, they perceive its offerings with explicit mistrust and state that they would be happy to refrain. The *Cautious* acknowledge that these days,

having a Facebook account is part and parcel of youth culture and that they would quickly drift into the shadows if they didn't play along. But they do not truly integrate the online community within their everyday routines. Only one quarter of them use Facebook daily compared with the average of 53 per cent among all 14- to 24-year-olds.

Among the *Cautious* we find a high proportion of persons that describe their own Internet skills as substandard to inadequate. While this proportion is substantially lower than among the *Insecure*³⁷ (five per cent among the *Cautious* vs. 24 per cent among the *Insecure*), there remains a pronounced difference to other people in the same age group and their self-assured handling of the Internet. Nevertheless, the *Cautious* believe it self-evident that they know their way around the online world better than their parents.

Statements on the topics of media, Internet and online communities



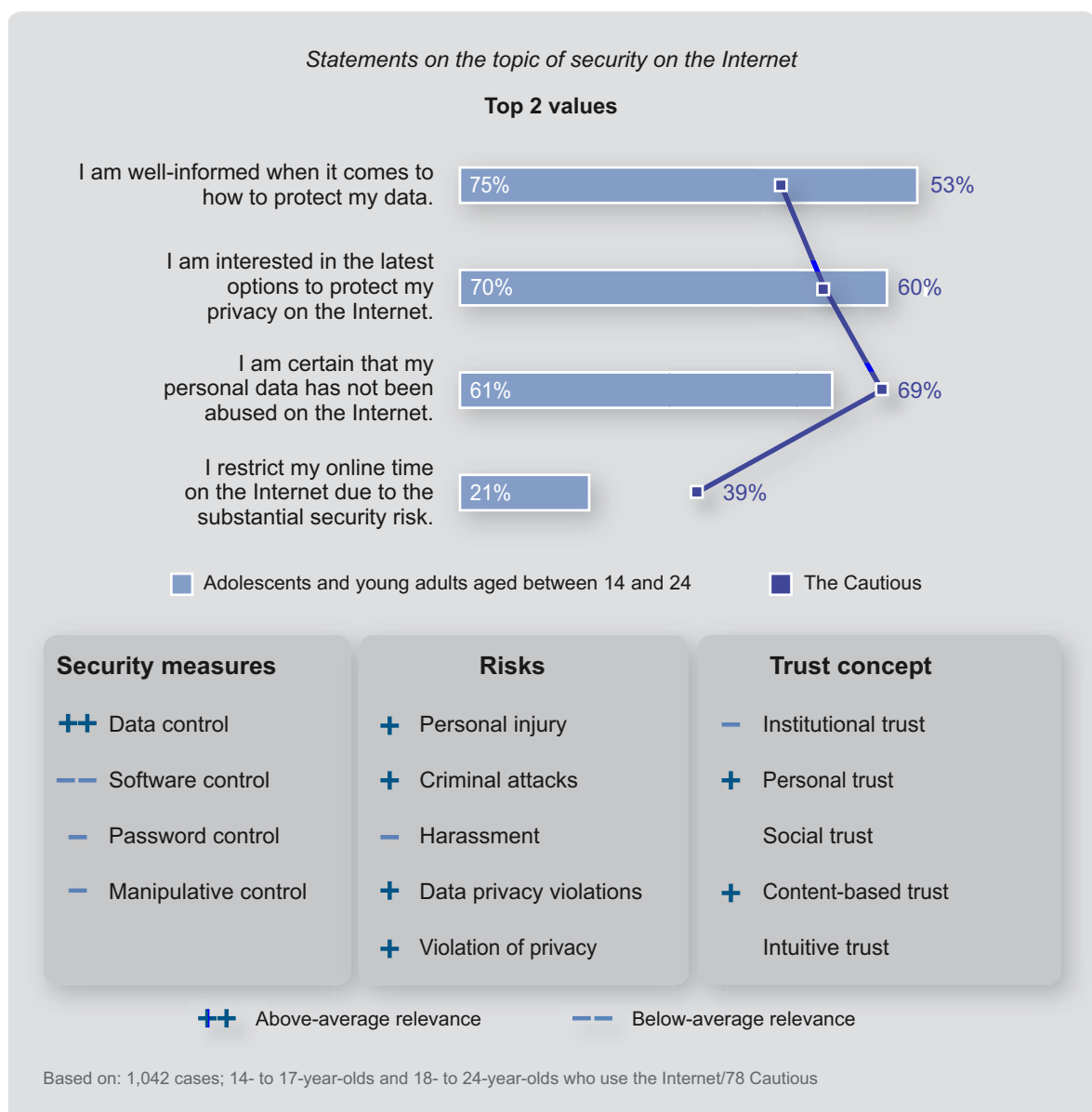
The *Cautious* display an unequivocal attitude towards swapping and sharing on the Internet: the fact that it may happen without anyone noticing is no excuse for doing something that is equally prohibited offline. No other U25 Internet milieu is so clear in its denunciation of 'free' content downloads via illegal Internet sites as theft. The *Cautious* place a lot of stock in knowing precisely whether a specific activity represents a legal or illegal practice. And when in doubt they do without. Equally, they are more vociferous than their peers in demanding respect for artist copyrights.

³⁷ The following chapter will present the DIVSI U25 Internet milieu of the *Insecure*.

The majority of these adolescents and young adults are certain that their data have not been abused on the Internet – not least because they have provided little occasion for this to happen. In their own perception they comprehensively control their own behaviour on the Internet and hence attempt to circumvent risks and dangers. This also describes their security practice: the *Cautious* exploit mechanisms of data control that mainly consist of abstention. Other control functions are irrelevant.

They have an extremely heightened risk awareness. They perceive the entire spectrum of possible risk complexes, with the exception of harassment (by email), which they explicitly do not consider an Internet risk. Popular 'Victim Reports' have a major effect on this U25 Internet milieu: attacks on minors

Trust and security



contacted via the Internet; burglaries because you posted that the family is away on holiday; or the significant financial repercussions of unwanted online purchases.

Compared with other milieus, the adolescents and young adults in this group are most able to imagine a future without the Internet. A mere 14 per cent agree fully that it will no longer be possible in future to be entirely offline (average for the age group is 32 per cent).

"And that's why this whole Internet thing you could say is really quite unsafe and relatively dangerous." (aged 14-17, m)

"Checking emails. So emails, Twitter or GMX. I actually hate it. I don't log on that often, just every few weeks. But then I always have to delete thousands of emails because I get spammed or totally useless Facebook messages." (aged 14-17, m)

"I don't have a Facebook profile. 'Cause I don't want people to find me straight off." (aged 14-17, m)

"I don't know. I'm not on Facebook that often. But I don't really like it. Nothing against you guys with tons of photos." (aged 14-17, f)

"Yes, at least because you don't really know your way about it, and then you want to... You don't just launch yourself blind into something somewhere on the Internet and... I don't know. I really don't know how to put it. I'm just scared because I don't know my way around it enough. Maybe that I'd get into trouble because of it and if I answer that I just didn't know what it was about, they'd answer well that's your own fault." (aged 18-24, m)

"Misgivings. You could say so, yes. I read a bachelor thesis about the dangers of Facebook. And if you see what they came up with it makes your hair stand on end." (aged 14-17, m)

"Well I didn't post my email address or telephone number. Basically as protection." (aged 14-17, f)

"You know, some young girl trying to find her first boyfriend there and she ends up with this old guy pretending to be younger. It's dangerous. You never really know who anyone is. You can pretend you're not who you are." (aged 14-17, f)

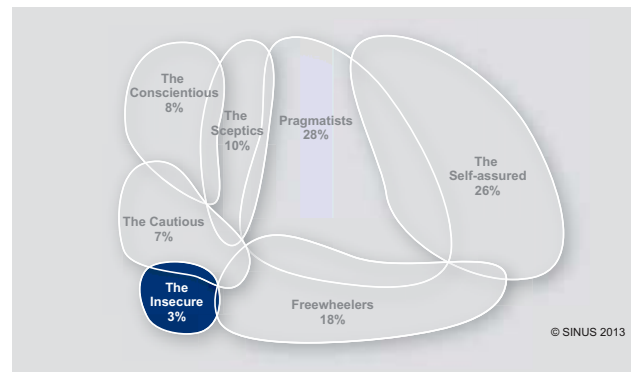
"Well it's totally easy to register there with a false name and stuff. And then you hear all the stories. Rape, that kind of thing. You hear these things." (aged 14-17, m)

"The minute you get a mail and click on the false link and bang you've got a virus on your computer. It's that quick." (aged 14-17, f)

4.2.7 The Insecure (3%)

Synopsis

Overwhelmed and reticent young Internet users with pronounced, yet vague, security concerns and a preference for the analogue world.



The 14- to 24-year-olds also include a minority of distinctly insecure and reticent Internet users. The low case numbers merely permit the designation of tendencies as concerns the demographic structure of this group. It is apparent, however, that female adolescents and young women account for a slightly higher proportion. There is an underrepresentation of persons with higher levels of formal education, although persons with moderate levels of formal education are represented frequently. Hence it is incorrect that the persons in this group exclusively possess low levels of formal education. The 14- to 17-year-olds account for a substantially higher proportion than the 18- to 24-year-olds.



The main lifeworld focus in this U25 Internet milieu is found in the Precarious lifeworld segment and extends into the segment with Materialistic-Hedonist characteristics. In frequent cases the low degree of digital participation by these young persons is merely one aspect of an essentially substratum social participation, manifest generally in financial, social and cultural respects. Broadly speaking these adolescents and young adults tend to have the most difficult starting position. There are various layers of insecurity woven together in the circumstances of their lives, which in some instances prove mutually aggravating. Here we find adolescents and young adults without much outlook for a successful start in the professional world, even if precisely this appears to be their dominant topic. The desire to improve their momentary situation in life, at some point to have things better than their parents did, is typical. But often there is a dearth of clarity as to how they can tackle this avenue of social amelioration.

Daily Internet use is no self-evidence for the *Insecure*. At a mere 26 per cent, this milieu is home to significantly fewer daily Internet users than the average in their age group (71 per cent). There is an entire ream of reasons for their reticence when it comes to the Internet: no way of using Internet at home, tight financial constraints to finance their own mobile access and also a low subjective appreciation of their own Internet skills.

Roughly 25 per cent of the *Insecure* perceive their subjective Internet skills to be substandard or inadequate. This is the highest value in a comparison of milieus. In contrast, the average is two

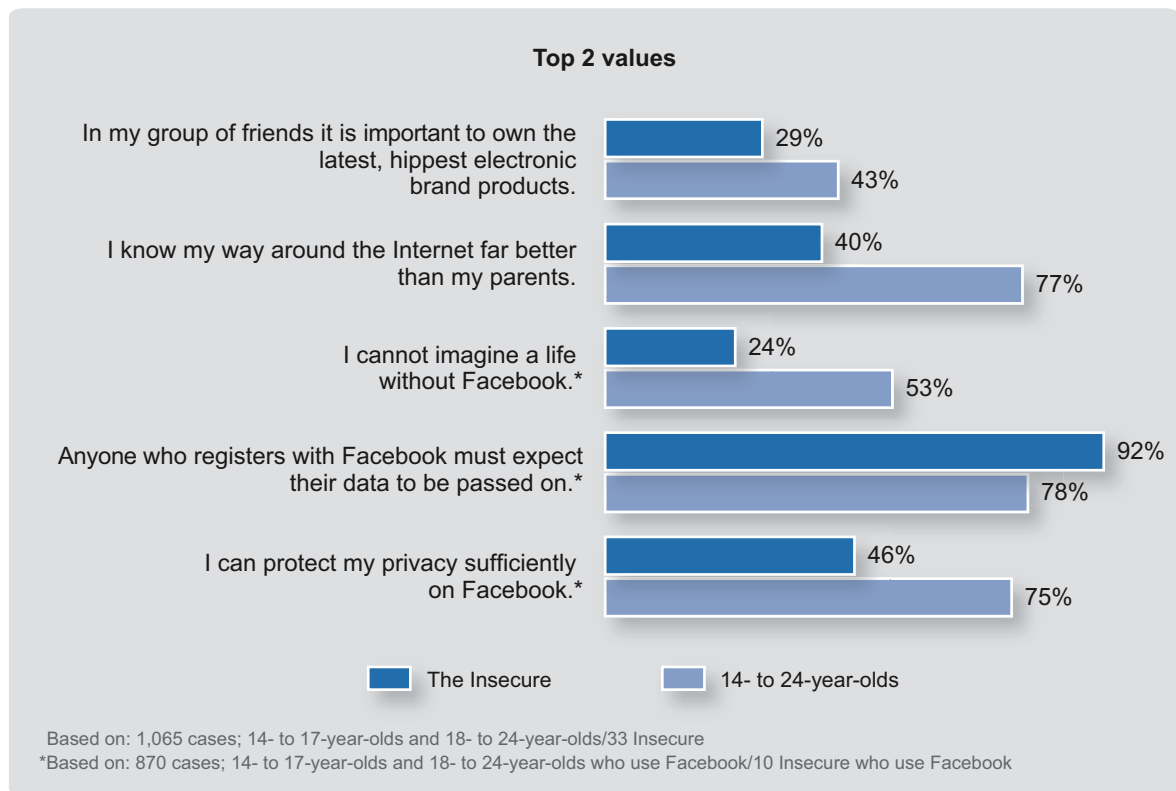
per cent. And although roughly one quarter consider their own skills to be good to very good, with this figure the *Insecure* once more remain under-represented (63 per cent on average). And this only includes those that actually use the Internet. In a comparison with their parents a paltry 40 per cent of these adolescents and young adults perceive their own Internet skills as more developed than those of their parents (76 per cent on average in their age group).

The proportion of non-users is also substantially higher in this U25 Internet milieu than in others, in which the most common per centage varies between zero and one per cent. And even if the size of this U25 Internet milieu means that the proportion of non-users represents merely a few cases in the overall random sample (N=8) and hence barely merits interpretation, it remains important to consider this finding. Additionally the overwhelming majority of these non-users believe it unlikely that they will turn to the Internet in future. Their main reason for non-use of the Internet is the lack of online access in their parental home.

Compared with others in their age group, these young people display less satisfaction in terms of other dimensions of life, as well. This refers to their financial budget and performance at school, as well as the relationships with their parents. Although in the latter instance roughly 75 per cent are satisfied or very satisfied, this is significantly lower than in an average of the age group (87 per cent).

The *Insecure* express distinct mistrust of Facebook. Internet users within this group are far less likely to keep a Facebook profile. Equally, the *Insecure* demonstrate less participation in other online activities. This starts with writing and sending emails and includes chatting or performing keyword searches for information about things they could buy or current affairs in politics or society. But it is important to note that many of these activities are barely relevant to the common lifeworlds among the *Insecure*. In general they lack opportunity to participate in consumer activities typical of young people, while media discussions on politics and society play out in spheres beyond their everyday discourse and thematic interests.

Statements on the topics of media, Internet and online communities

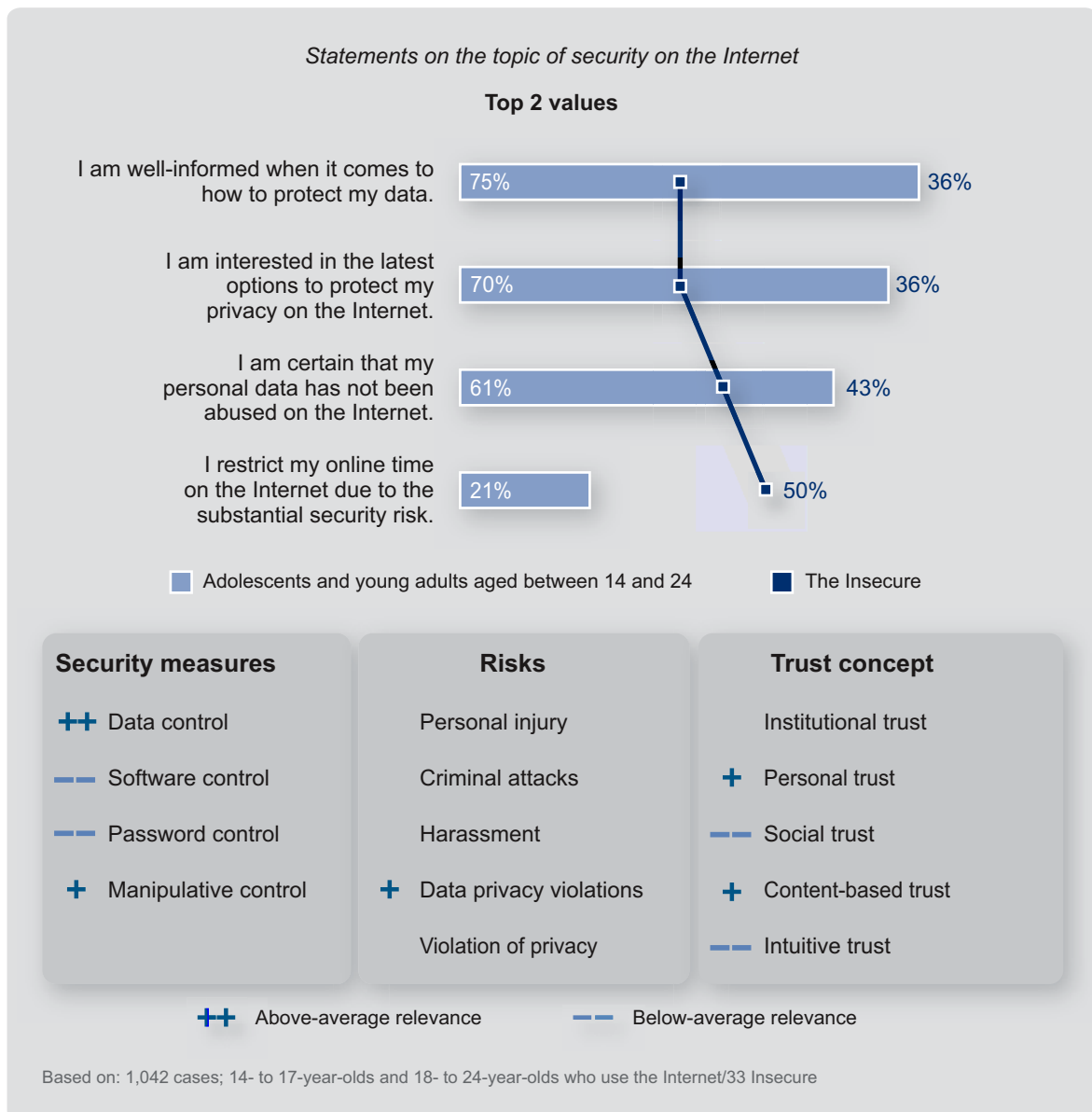


Data protection and privacy are not among the core topics for the *Insecure*. They are interested in these aspects less frequently than their peers and, comparatively speaking, also feel inadequately informed. The largest proportion of those who concur with restricting their own online time due to the security risk they perceive is found in this U25 Internet milieu. Their responses to questions concerning a variety of risk aspects cluster around the average; their uncertainty is vaguer in nature, based on their inadequate involvement with the medium. Hence it follows that the *Insecure* frequently feel unable to assess actual risk potentials.

The *Insecure* make negligible use of technical security mechanisms such as software controls. They frequently eschew options such as password control. In contrast, they make lively use of data control and are more likely to refrain from uploading and downloading data than they are to search for safer means of doing so. They also deploy the options of manipulative control, meaning providing false data on websites.

So who do these insecure young Internet users trust? Intuitive and social trust is barely discernible. They prefer to rely on the – few selected – pages they visit being safe. And if Internet pages satisfy certain preconditions (no pop-up advertising, not too gaudy in design), they are pronounced reliable. Familiar persons such as parents, siblings or teachers are also considered trustworthy.

Trust and security



When asked to assess the future significance of the Internet, it becomes apparent that the *Insecure* are most certainly aware of how – not always intentionally – special their role is at times: very few of them believe that it will be possible in future to be entirely offline, and in this they do not differ significantly from the average of their age group. But they do not perceive that in future they will also participate online.

"I don't have Facebook because it just doesn't interest me. Dunno, really. That's...if I want to get to know someone and talk to him, I just do it. I don't need to do it by Internet." (aged 14-17, m)

"Right from the start I said no to Facebook. I've never registered on anything like it. I've never been on any of those pages; nothing can get me there." (aged 18-24, m)

"I wouldn't do online banking either. I've never done it up to now and I won't really need it. I prefer going to the bank and transferring things there. I find it better. It's just the personal touch. Yes, with online banking I don't know maybe if you can make mistakes. I've never done it. But like if I say put this on that account, then it goes on that account. And if something goes wrong it's not my fault. It's the woman at the bank. I find that safer." (aged 18-24, m)

"Don't ask me what I'm even meant to do all the time on the Internet. I don't have any people I text with or anything like that all the time." (aged 14-17, f)

"If you ask me the people who sit around on Facebook are missing more than me, even if I don't have Facebook." (aged 18-24, m)

"Internet will never really be my thing. Even now I barely touch it." (aged 18-24, m)

5. An overview of Internet use: How young people grow into digitised everyday structures

5.1 Stages of digital development

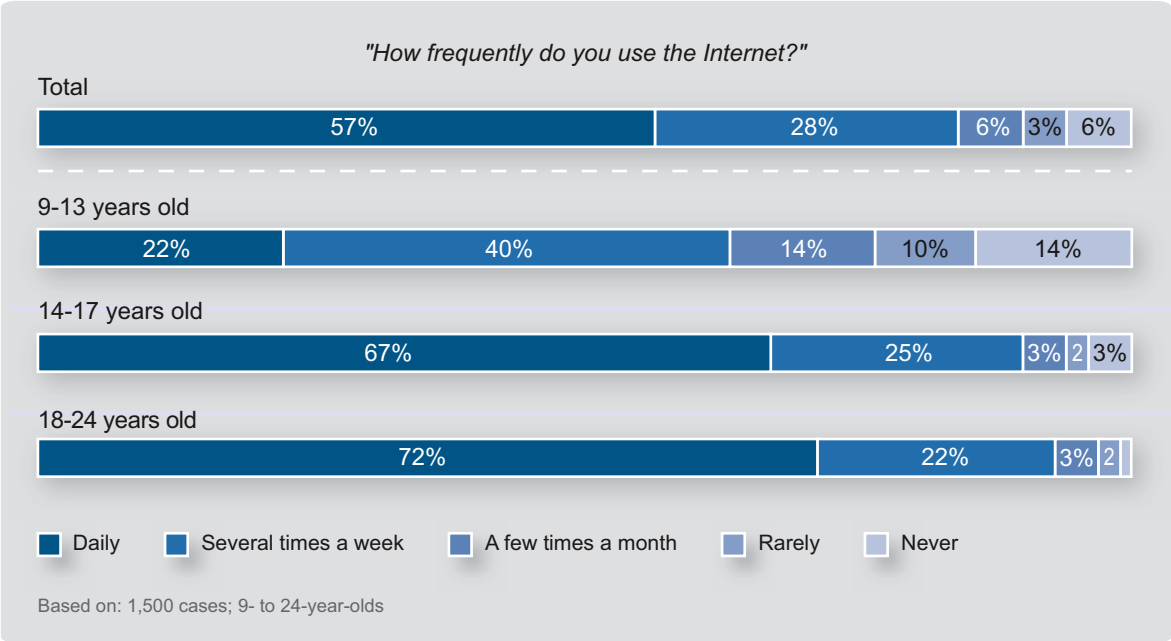
Children, adolescents and young adults appreciate being online in different ways. For children, Internet use means playing games. But as they grow older the focus shifts gradually towards constant communication in online communities and on messaging services. Communicating with friends has become the most important facet of Internet use for adolescents and young adults. The quantitative and qualitative findings of the study both confirm this statement.

So when the ongoing public discussions sweepingly refers to 'Internet use by young people' it not only fails to appreciate the variety of digital lifeworlds and thought patterns we have already described, but also the specific differences in use found in the younger generation. And as technical and digital development gathers pace, the intervals within which one could speak of differences specific to a certain generation grow shorter. Hence the following will describe which developmental stages, thresholds and turning points are evident in online behaviour between the ages of 9 and 24.

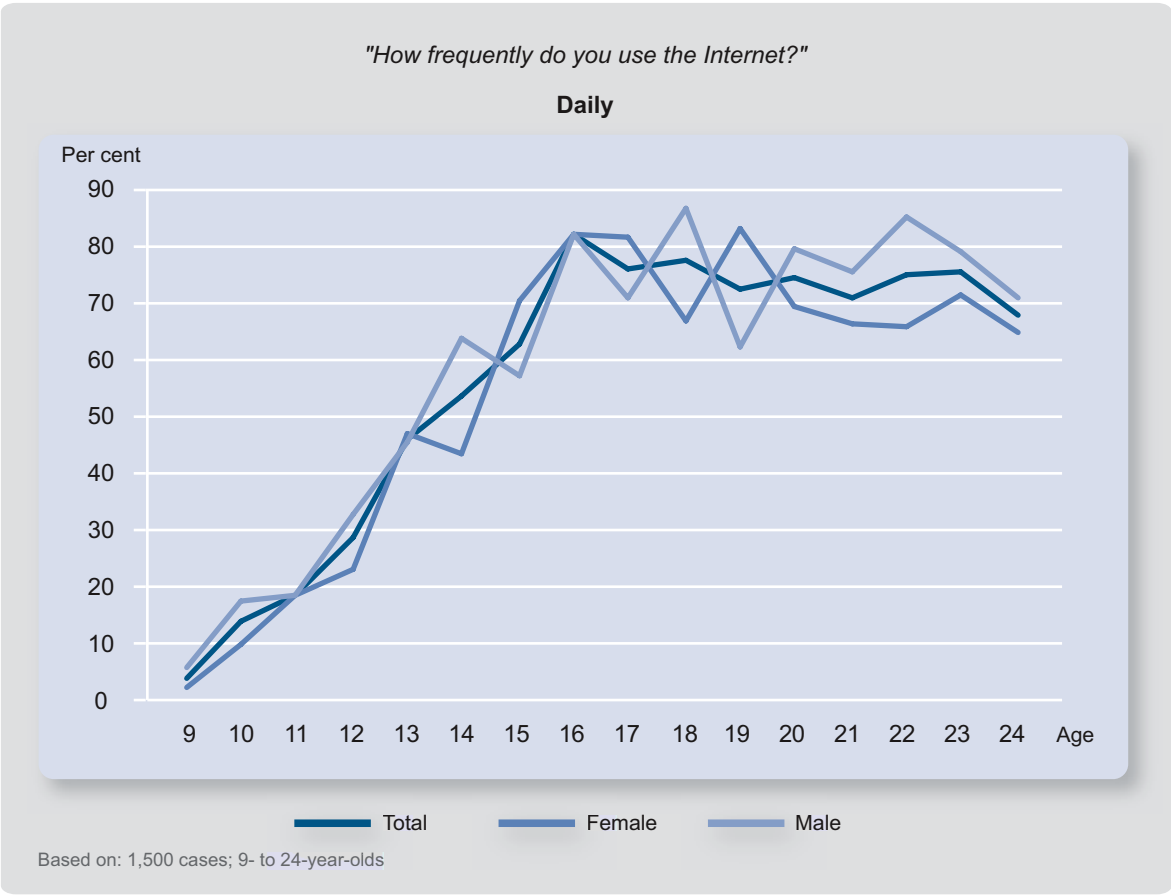
From year to year, Internet use becomes a greater mainstay of everyday life.

Increasingly we are unable to do without the Internet as we grow older. 22 per cent of children use the Internet daily. But this figure rises to 67 per cent among adolescents and 72 per cent for young adults. Children continue to experience two separate worlds – one could say a digital chasm in 'miniature format': 22 per cent are already online daily; 14 per cent not at all.

Frequency of Internet use



Internet use: Age-specific development



The detailed age curve reveals the steep and also constant rise of daily Internet use among 9- to 16-year-olds. Over 80 per cent are online every day by the age of 16.

"That happened to me once for a whole week. Absolutely no reception. But actually it was not bad at all because I had something else to do all day. But now I would find it pretty annoying. Back then I didn't have such a great phone. I didn't have WhatsApp or anything [...]." (aged 9-13, f)

"It is annoying without Internet. No gaming. No Facebook. Yes. It'd be mega-boring." (aged 9-13, m)

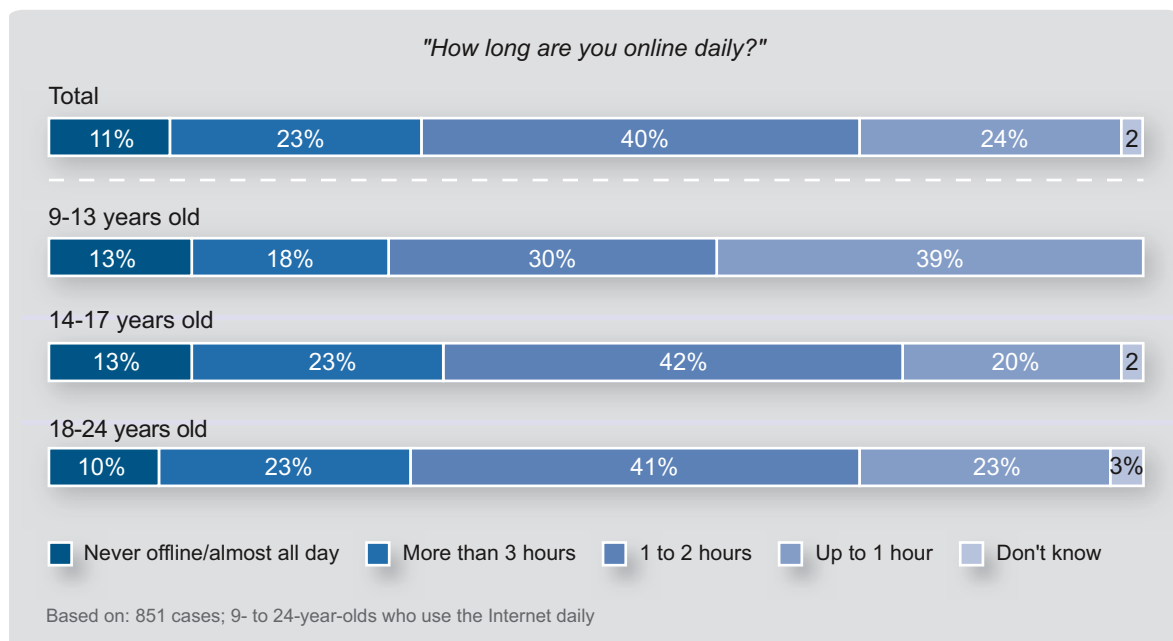
"My hobbies are singing, anything artistic. And since last year hanging around on the Internet, too – just hanging around on the net, nothing else." (aged 14-17, f)

"Most of the time I listen to music and go online, both of them together usually." (aged 14-17, f)

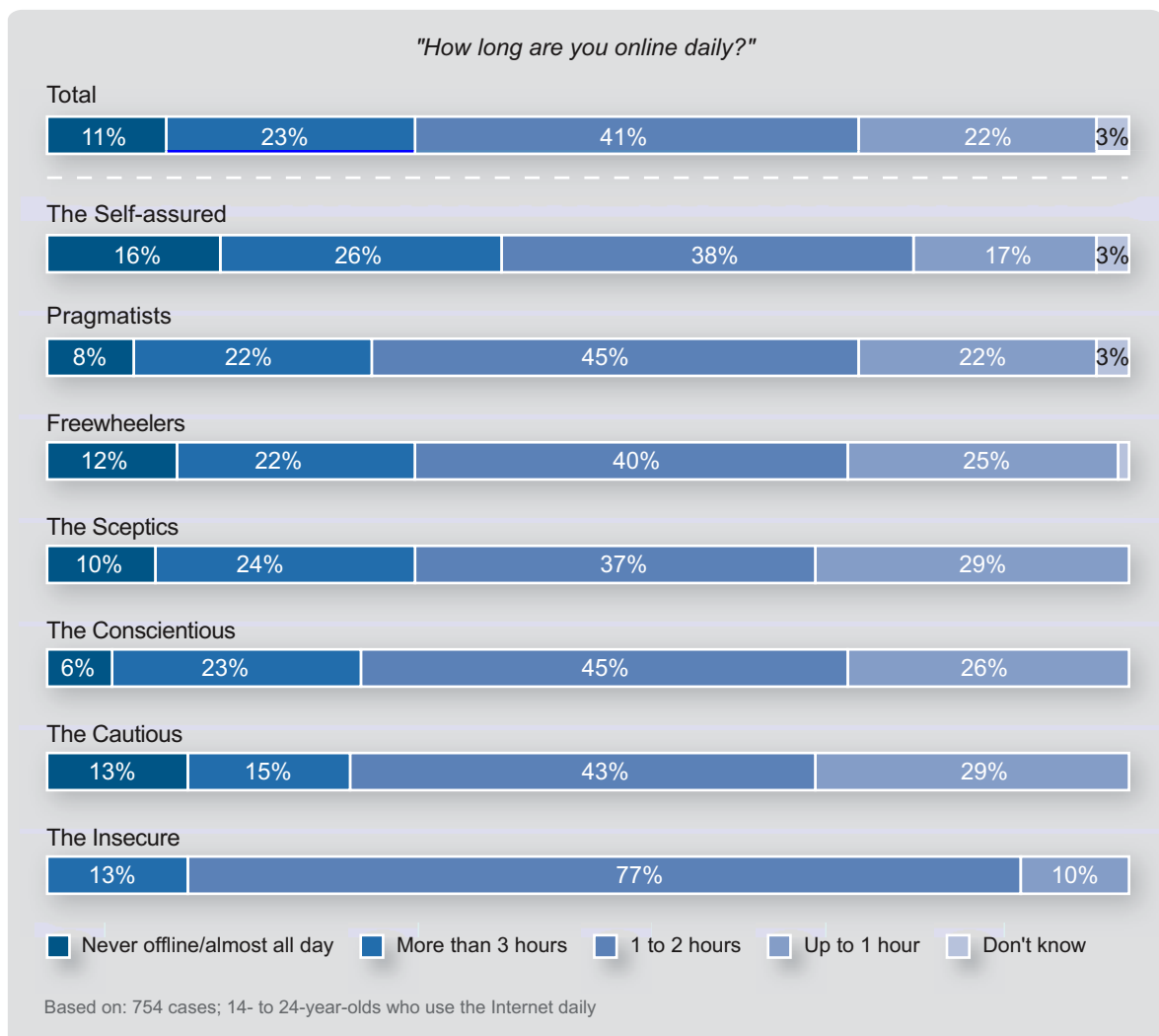
"Actually I'm always online. Almost always. Looking for something or playing music." (aged 18-24, f)

The duration of daily use is also rising. From the age of 14 over 70 per cent of daily Internet users spend at least one to two hours online. And almost eleven per cent of those interviewed spend almost every free minute on the Internet.

Daily online time



Online time: Milieu-specific differences



But when it comes to the amount of time they spend online, there are some clear differences between the seven U25 online milieus. In their subjective self-assessment of constant Internet use the *Self-assured* come in first place with 16 per cent; the *Conscientious* record roughly six per cent and are therefore mid-table, while the *Insecure* do not include any users who are online constantly.

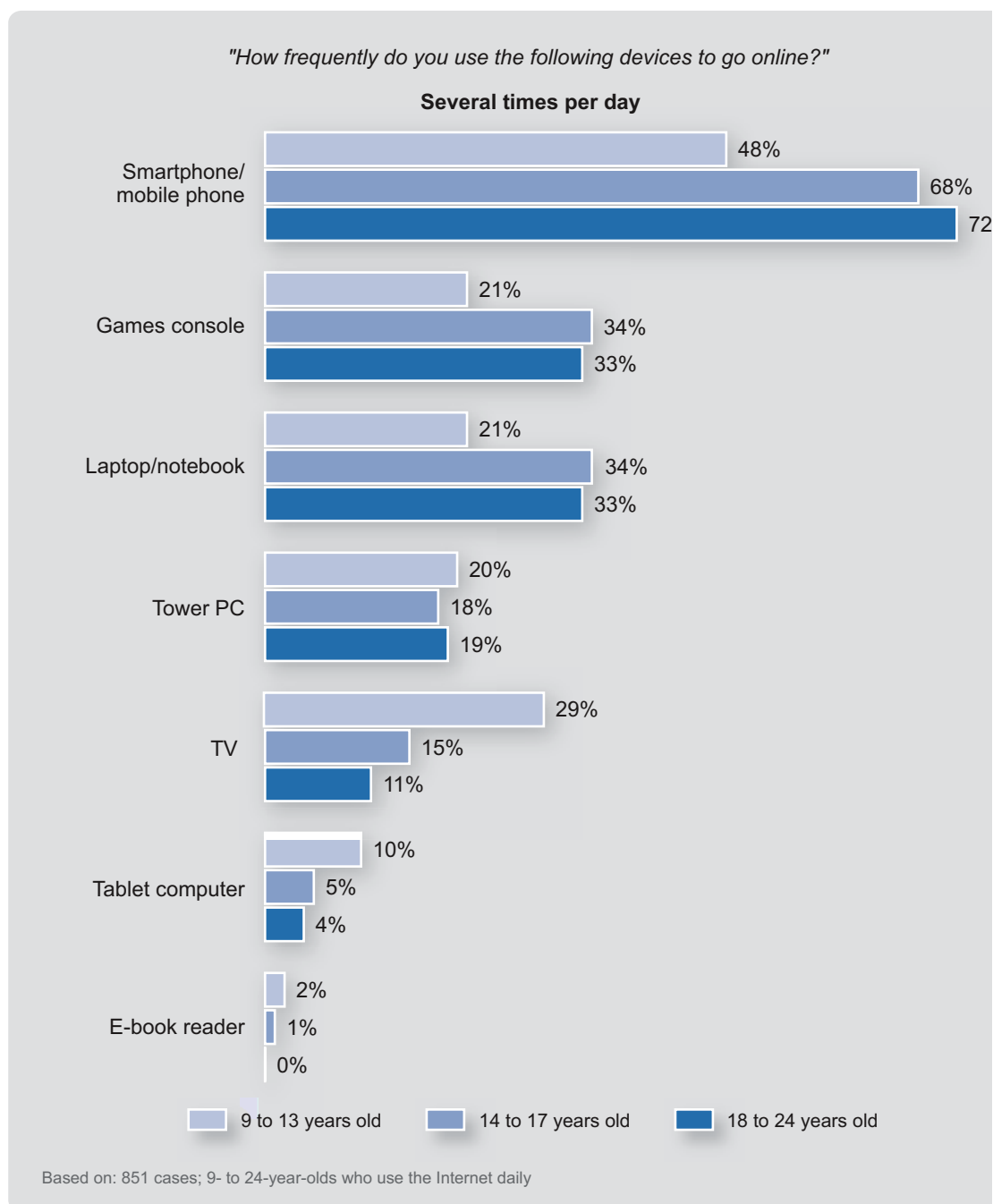
5.2 The blurring of online and offline

In the eyes of children, adolescents and young adults, the Internet is a mobile medium.

Among users, the emergence of mobile devices – above all smartphones, but also tablet computers and gaming consoles – has entirely redrawn the lines when it comes to the integration of being online in a daily context. Smartphones have become constant companions for all situations in the lives of young people: They are navigators, organisational tools, entertainment medium and dedicated line of communication with friends all in one. The qualitative and the quantitative surveys reveal that

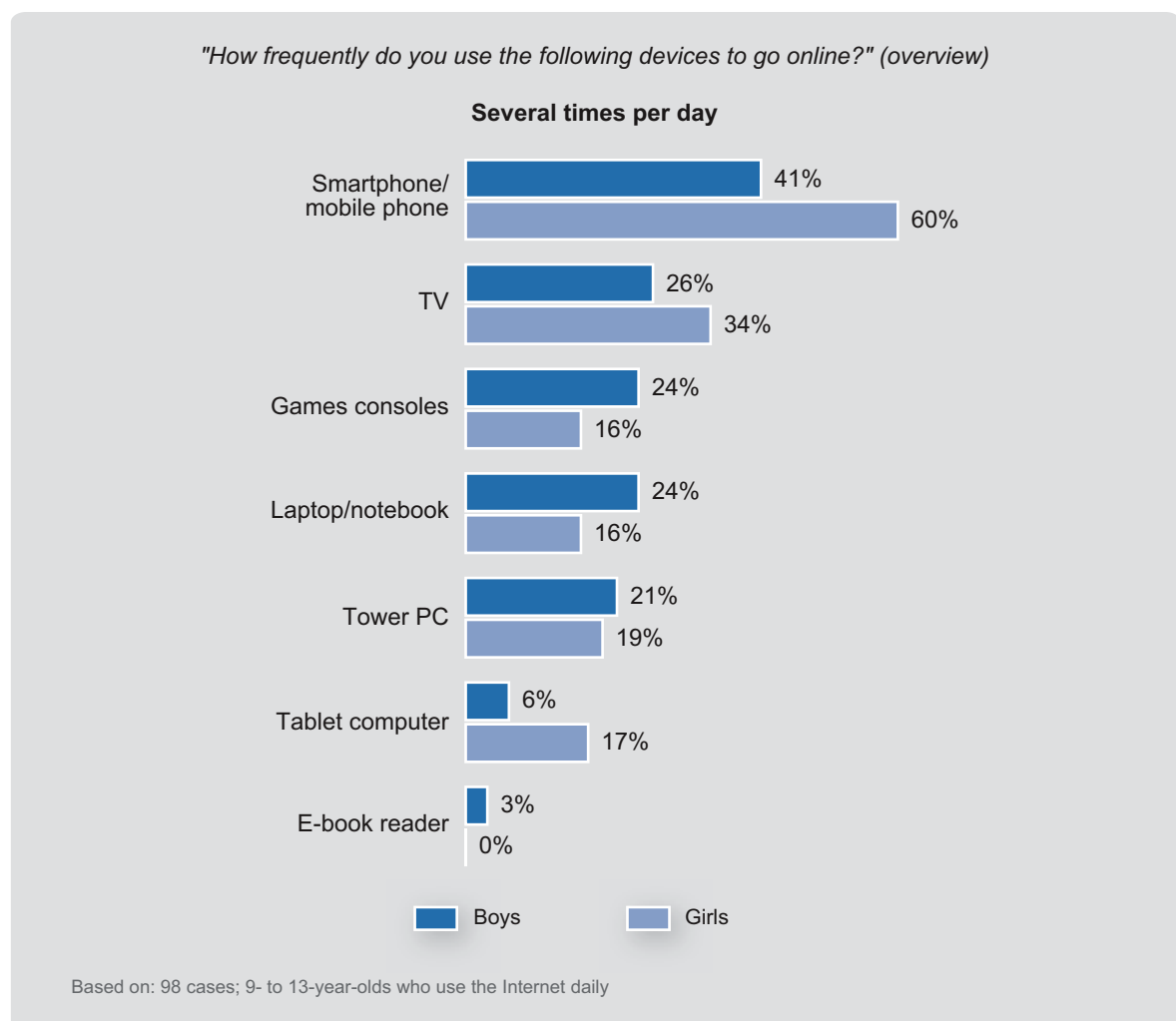
children, adolescents and young adults spend substantially less time on laptops or stationary computers, and correspondingly more with their smartphones. Roughly 68 per cent of adolescents and 72 per cent of young adults that use the Internet daily do so by means of a smartphone or mobile phone. And even roughly half of all children who use the Internet daily will go online by smartphone several times a day. In contrast, only 18 per cent of adolescents, 19 per cent of young adults and 20 per cent of children use stationary computers for daily Internet access.

Internet use – Devices



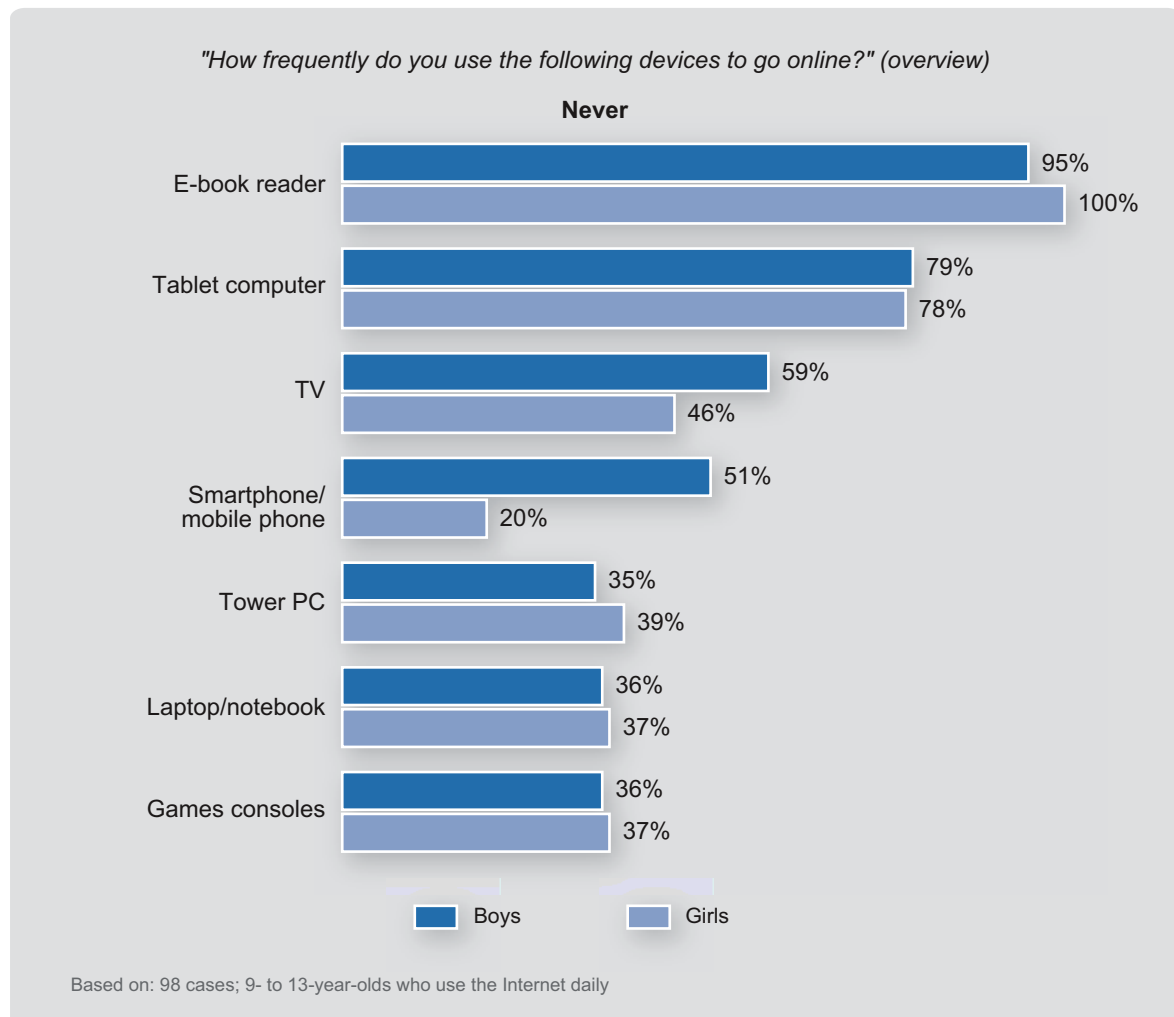
Further, the use of tablet computers is on the rise, especially among children. Ten per cent of the 9- to 13-year-olds who use the Internet daily (22 per cent) do so several times a day by means of a tablet computer. Conversely, adolescents and young adults aged over 14 turn to these devices half as frequently. Children are also the pioneers when it comes to going online using Internet-ready televisions – even if this cannot be considered mobile access. Just under one third of this age group use a television to surf the net several times a day; in contrast, the use of Smart TVs to access the Internet among adolescents and young adults is significantly less widespread. This may indicate a new trend, one that is spreading gradually among children. After all, every second flat-screen television sold in Germany over 2012 was a Smart-TV.³⁸

Internet use – Devices (children)



³⁸ Cf. Goldmedia Custom Research 2012 on behalf of BITKOM (n = 2,000); cf also TFM Study 2013: 20.4 of Smart TV users do indeed use their Smart TV to access the Internet.

Internet use – Devices (children)



Girls are particularly fond of using mobile Internet access. 60 per cent of girls in the age group of 9- to 13-year-olds use a smartphone to go online. The corresponding figure for boys is just 41 per cent. And while 17 per cent of among girls who are online daily use a tablet computer, only six per cent of boys follow suit. These figures can only be considered nascent trends that require further analysis, as the case numbers are currently insufficient. Yet it appears increasingly possible nevertheless that girls have long since caught up with and compensated for the deficits in terms of digital participation observed among women just a few years ago.

“Laptop? Not that often anymore; I can go online with my smartphone.” (aged 9-13, f)

“I always check Facebook when I’m waiting for the bus or the train!” (aged 9-13, m)

“Most of the time I use my tablet to go online, and – yes, usually I’m on YouTube to check out the videos.” (aged 9-13, m)

“Generally I use [...] mobile Internet because I’m out and about a lot and then I surf a lot, too. And then there’s a smaller bit of normal Internet; but then I’m at home with the laptop.” (aged 14-17, m)

Adolescents and young adults make scant distinction between online and offline times.

A comparison of age groups indicates that in quantitative terms, using mobile devices to go online (predominantly a smartphone) is particularly relevant for adolescents and young adults. From the age of 14 on, most of us can no longer imagine a life ‘without’. Although smartphones become increasingly important for children beyond the age of around eleven, initially they are used – as the qualitative survey revealed – primarily for telephoning, texting, WhatsApp and music.

And as mobile devices pervade our lives, young people increasingly feel that they are permanently online. Quite a few boundaries between online and offline times are diaphanous in the subjective appreciation of adolescents and young adults (Cf. Chapter 3, Definition: being online). The fact that in many cases we do not explicitly log off from mobile apps³⁹ such as the Facebook app or WhatsApp, remaining in ready mode to exchange messages, serves merely to enhance this subjective impression. Smartphones or tablets make us continuously available for chat mode. The ‘offline good-bye’ at the end of the evening (e.g. *“Hey people, I’m going off, time to sleep”*), commonplace just a few years ago, appears no longer to exist. Instead, being offline is an exceptional state – indicative of an emergency.

³⁹ App is an abbreviation for application, a type of service program. Since Apple launched its App Stores in 2008, the term app has been used in German-speaking territories almost exclusively to mean mobile apps, and hence is equatable with application software for mobile devices such as smartphones and tablet computers.

"Actually I think we're always online if we have our phones with us." (aged 14-17, f)

"Somehow you're online the whole time and I think it's just going to end up getting even madder." (aged 14-17, f)

"[...] because when I'm texting on WhatsApp or stuff at most I'll say 'seeya' or 'sleep well' in the evening. But you don't constantly say goodbye if you're texting during the day." (aged 18-24, m)

"Well as soon as I get up in the morning and go to the bathroom, I'll take a peek at the Internet. Usually Facebook or WhatsApp [...] so I'm actually always online, apart from when I'm asleep." (aged 18-24, m)

"I've got it on the whole time. I'm always online with my phone." (aged 18-24, f)

"I'm online pretty much 24 hours a day. Because you always get push notifications on WhatsApp and communication apps and so the phone rings and that makes you available all the time. And if my notebook is off, my phone is still always on [...], unless the battery dies." (aged 18-24, m)

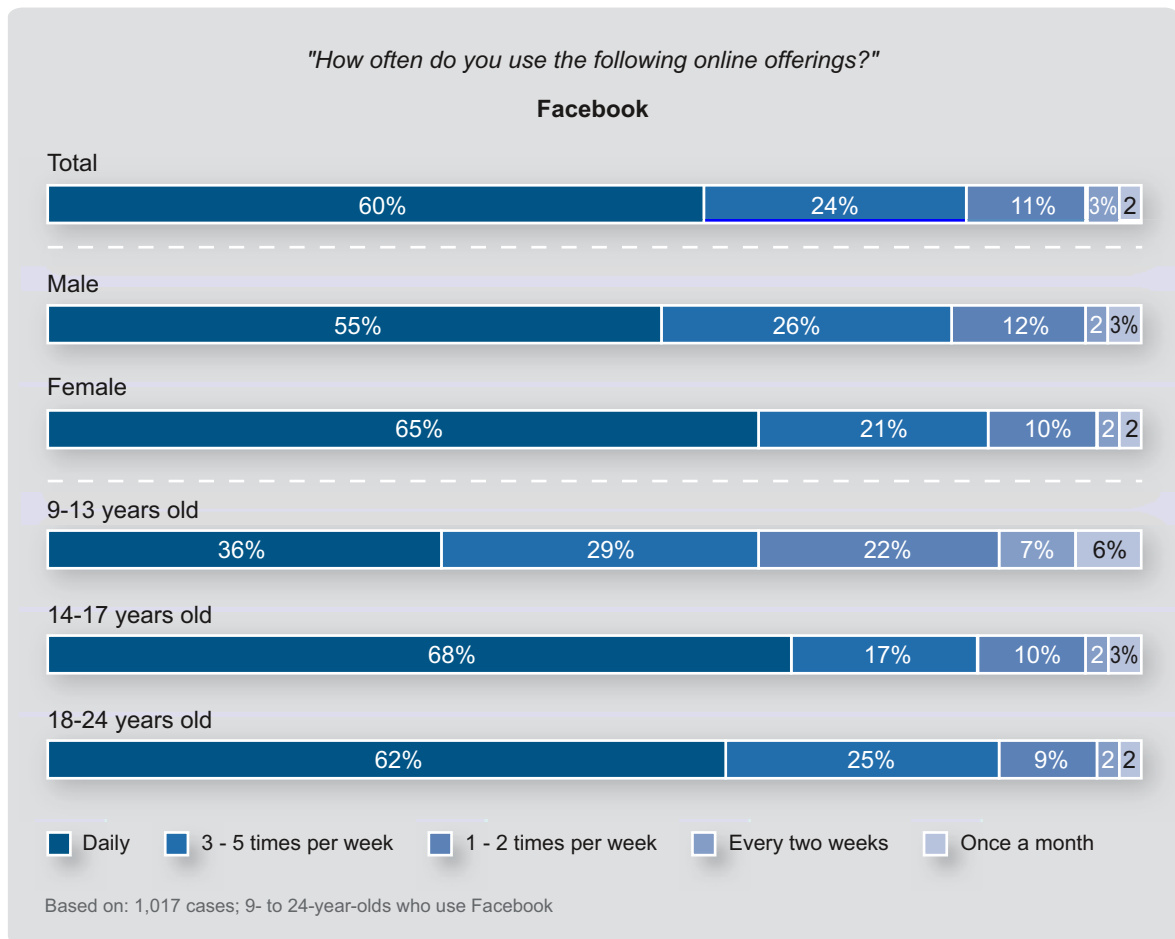
5.3 Internet = Facebook?

Using online communities accounts for a substantial portion of (mobile) Internet use among children, adolescents and young adults. The importance of these offerings rises sharply during puberty as they offer space for age-specific development challenges, in particular when it comes to managing identity, relationships and information.⁴⁰

The findings of the quantitative survey underscore the immense significance of Facebook within daily Internet use: 60 per cent of the Facebook users interviewed – or 68 per cent of children, adolescents and young adults – are active every day in the online community. The numbers of those who use Facebook sporadically are small. The proportion of all interviewees that use Facebook, but only log on every two weeks or once a month, is five per cent. And although the online platform officially does not permit user registration until the age of 13, there are children registered and active on the platform beforehand: 36 per cent of them, every day.

⁴⁰ Cf. Schmidt/Paus-Hasebrink/Hasebrink 2011: Heranwachsen mit dem Social Web. Berlin. p. 210-212.

Frequency of Facebook use



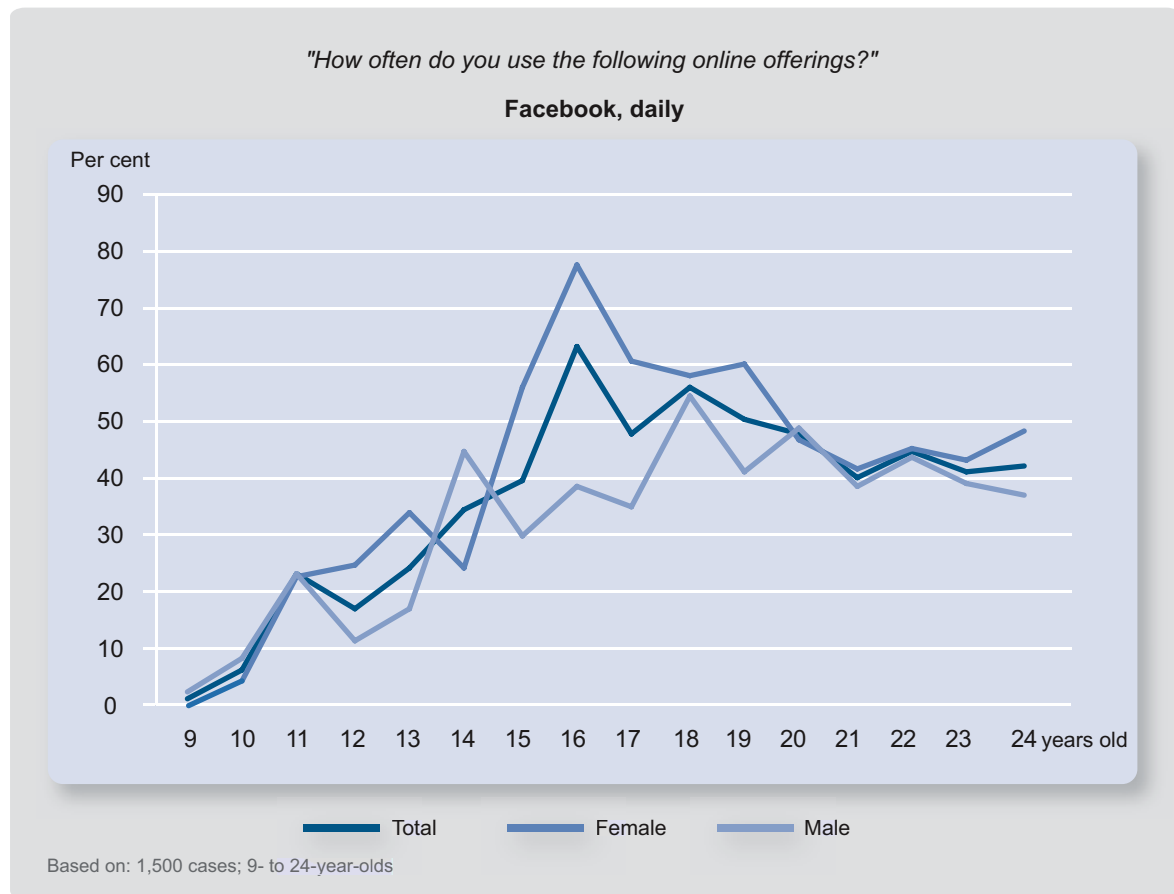
Facebook plays a particularly important role for the female interviewees. They are more likely to use this online community daily than the male interviewees. A detailed age curve reveals that the gender-specific differences in terms of Facebook use are at their most distinct aged 16: whereas 77 per cent of the female adolescents are active on Facebook daily, the figure for their male counterparts is a mere 38 per cent. User behaviour does not equalise on a common level until after the age of 18.

"When I knock off I go home and the first thing I do is check Facebook, then game for a bit and afterwards meet friends. In the evening I look at what's coming in school, watch TV and go to bed."
 (aged 9-13, m)

"That you feel somehow naked. Sounds stupid, but you're missing something the whole time, something to do or to log on to Facebook with. It is kind of funny to go somewhere without a phone."
 (aged 14-17, m)

"All of us are on Facebook almost every day and it is a bit like an addiction that we have to check Facebook every day. It is addictive." (aged 14-17, m)

Facebook: Age-specific use

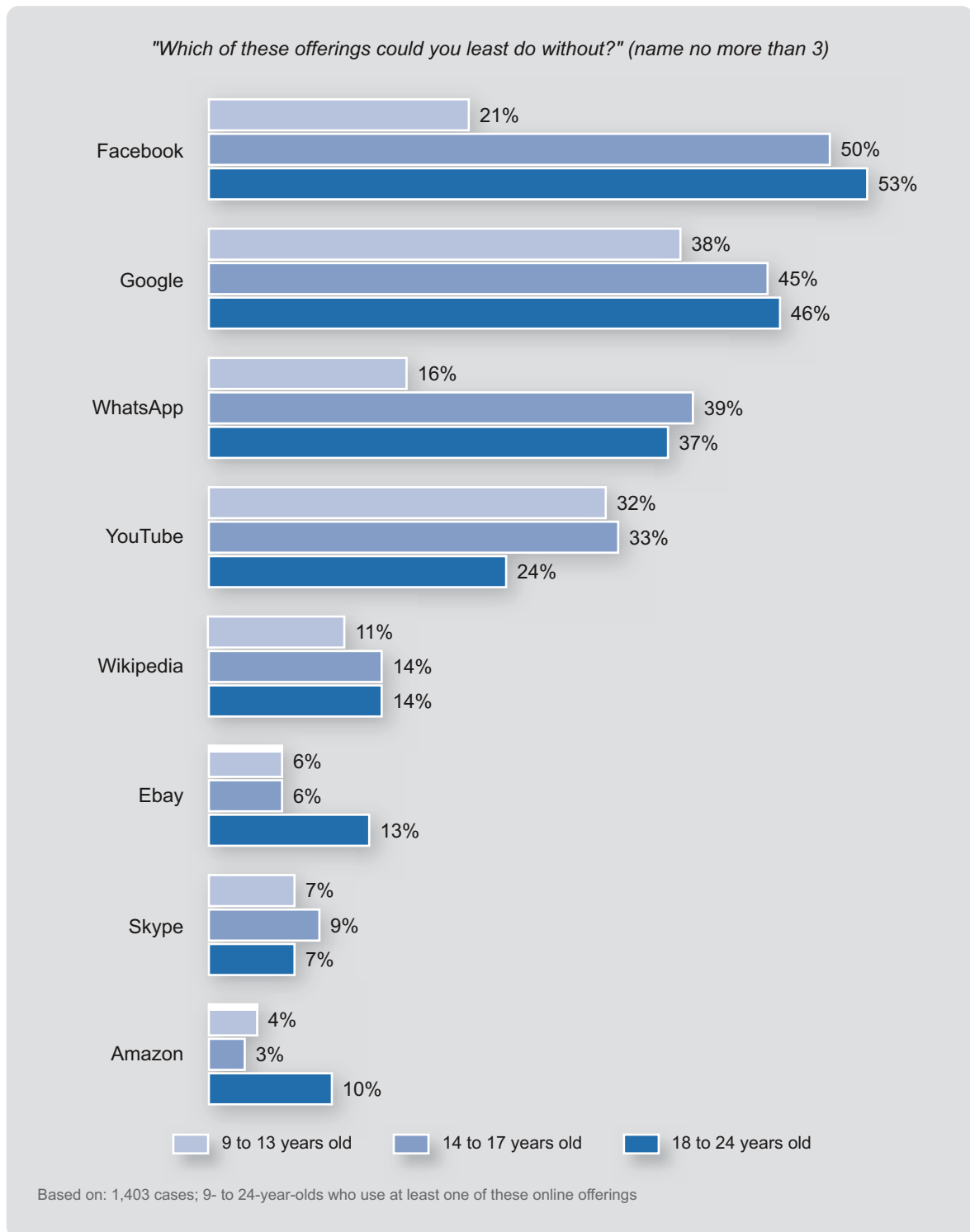


WhatsApp advances to become an important online communication channel

Besides Facebook, the messaging service WhatsApp has developed at breakneck speed to become a daily companion and important communication tool⁴¹ especially for adolescents aged over 14. The app is used for the synchronous exchange of messages, audio and (moving) image materials, and links between persons who have saved their mutual contact data in their telephone books and installed the app; it also works for groups. The users are also in continuous chat conversations on WhatsApp. As we have seen already, many adolescents and young adults gain the impression of being constantly online as the communication channel is always ready to receive. The quantitative survey indicates that besides Facebook and Google, the messaging service has become the third most important Internet application for adolescents aged over 14: more than one third of adolescents and young adults feel that WhatsApp has become indispensable for day-to-day communication.

⁴¹ Diana Chub founded WhatsApp Inc. in Santa Clara, California, in 2009; it has also been available in Germany since 2010. The company released its current user figures for the first time in June 2013, published in the Wall Street Journal. They claim that WhatsApp has 250 million users worldwide. Additionally, the company confirmed to the US blog AllThingsD in August that it has 20 million users in Germany: <http://allthingsd.com/20130806/the-quiet-mobile-giant-with-300m-active-users-whatsapp-adds-voice/>

Relevance of online offerings

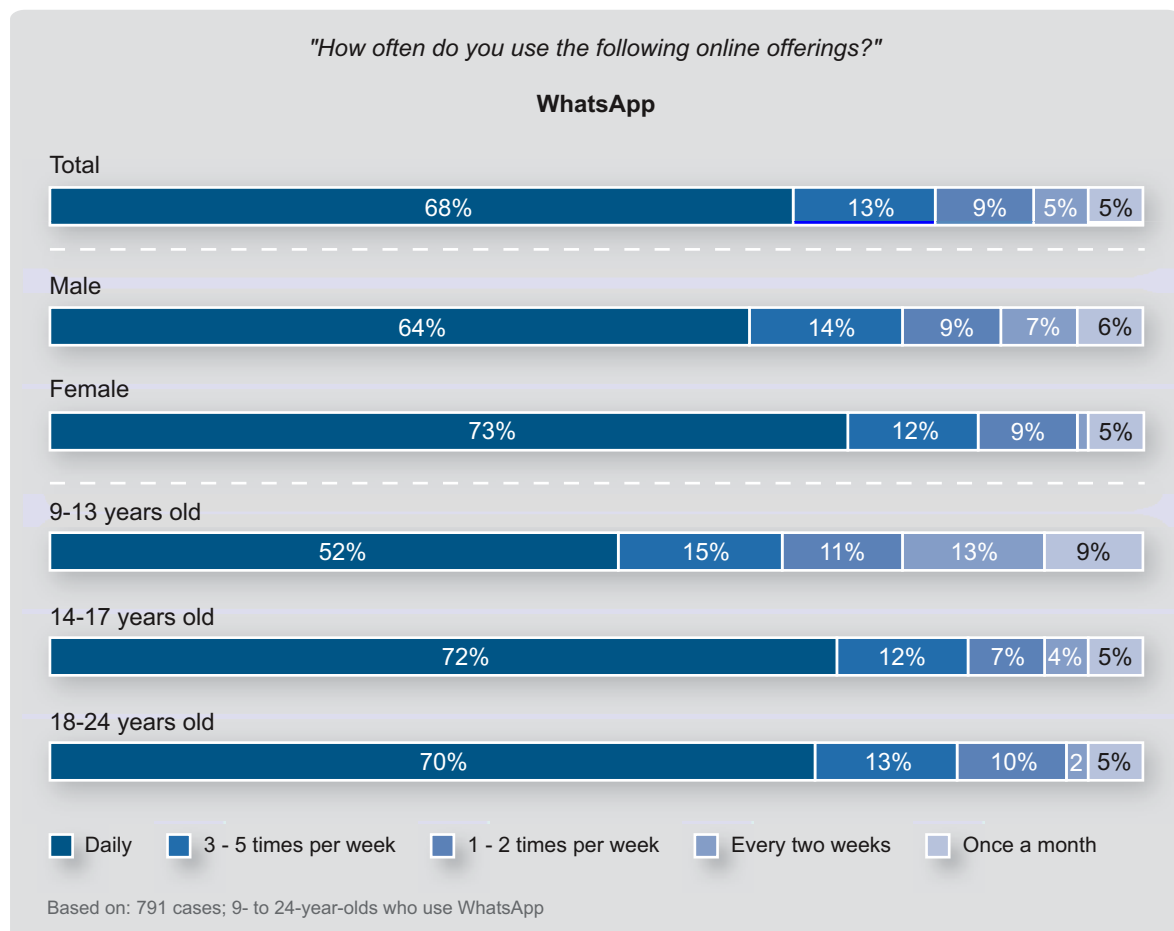


30 per cent of children have already installed WhatsApp on their smartphones – even if its use is officially not permitted for under-16s. The app is an integral part of daily communication among one

half of all children who have it installed. 72 per cent of adolescents and 71 per cent of young adults who have installed WhatsApp use the app daily.

The qualitative findings deliver reference points for this trend: messaging services such as WhatsApp or the Facebook app are frequently seen in comparison with telephone offerings. But unlike sending messages and images via text message or MMS, these applications do not cost anything.

Frequency of WhatsApp use



The age-related effects in the use of Facebook and WhatsApp are approximately equivalent. The detailed age curve yields a more precise indication that the use of WhatsApp rises exponentially during the transitional phase from childhood into adolescence. 16-year-olds display the greatest intensity in using the messaging service. Certain gender-specific differences are also manifest here. 81 per cent of female adolescents and 72 per cent of male adolescents interviewed use this messaging service for daily communication at the age of 16.

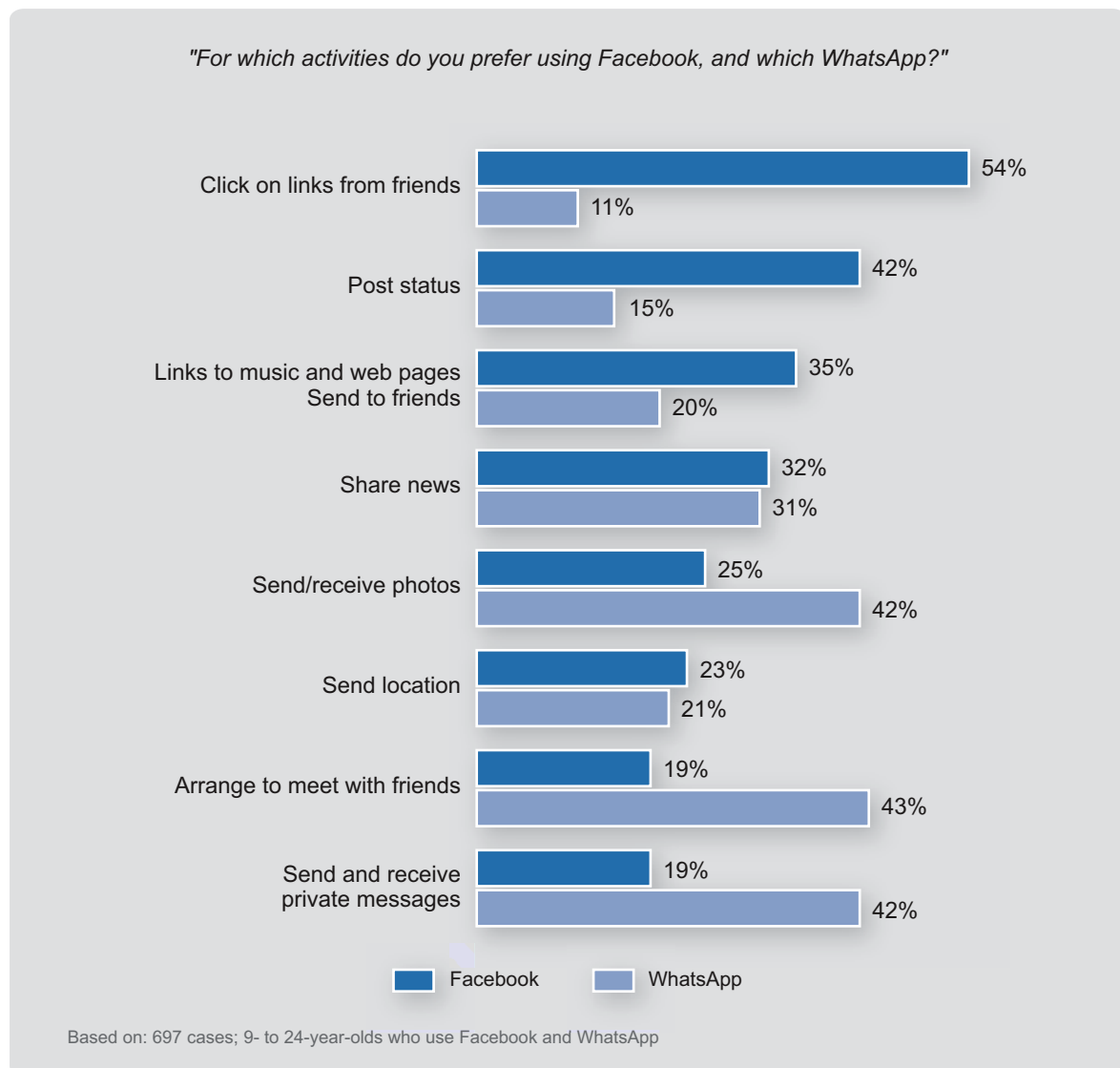
Age-specific use of WhatsApp



Facebook vs. WhatsApp – attracted by novelty value?

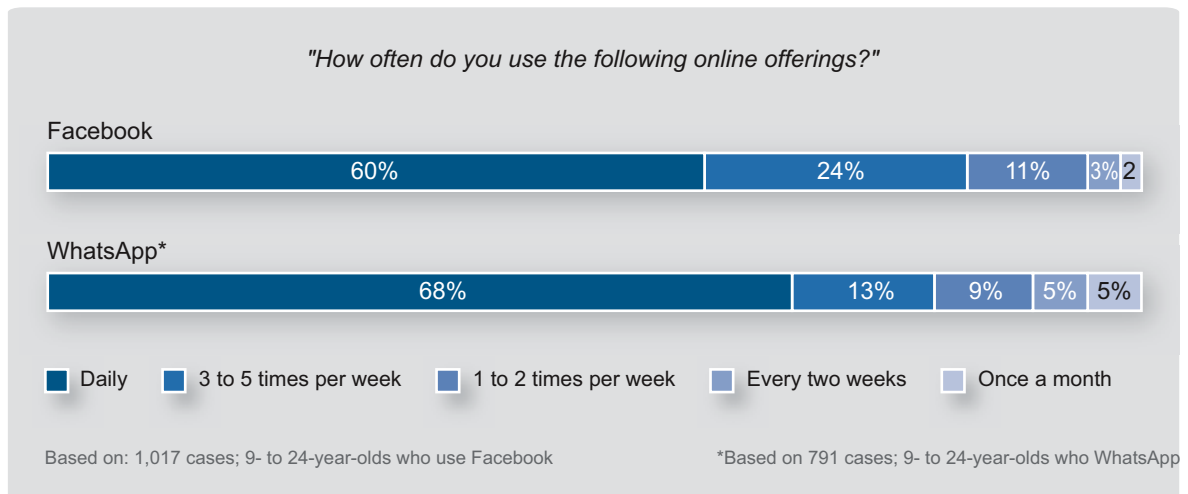
It is not possible to provide a clear answer here as to whether WhatsApp will ultimately overtake Facebook. But it is most obvious that WhatsApp satisfies a different slant of communication needs among the younger generation. WhatsApp is used predominantly for (daily) current and direct communication and in consequence is used more frequently than Facebook to make appointments, to converse by private messages and to send photos. In contrast, the activities that play out more frequently on Facebook than on WhatsApp are less targeted – meaning they address more than one specific recipient – and are substantially more asynchronous, i.e. they do not prompt immediate temporal response to the communication impulse.

Differences in use – Facebook vs. WhatsApp



The findings concerning the frequency with which these two offerings are used uphold this estimation. Children, adolescents and young adults most commonly use WhatsApp daily; only rarely do they use it less frequently, in other words several times a week. Daily use of Facebook is less distinctive; use just several times a week is far more commonplace.

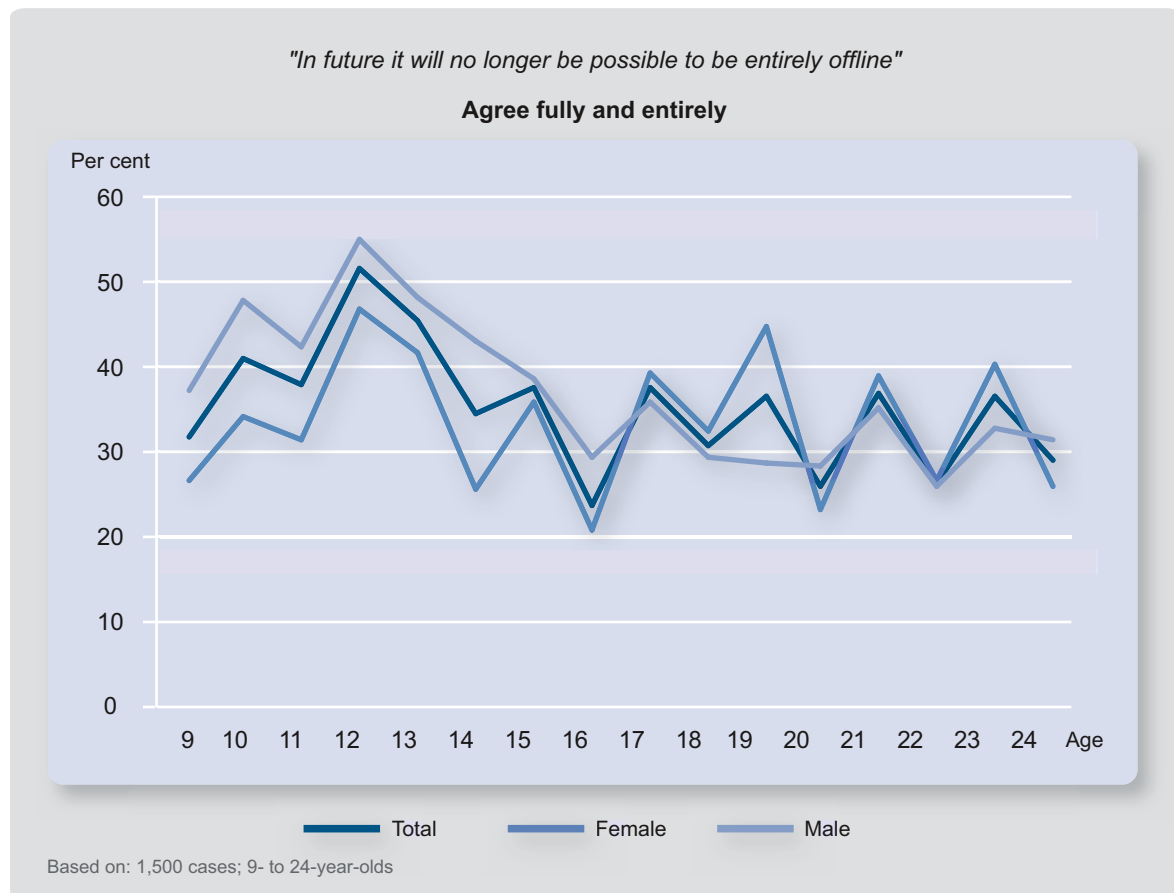
Frequency of use – Facebook vs. WhatsApp



5.4 Children are the new Internet optimists

Although children frequently possess a rather quixotic perception of what the future of Internet may bring (e.g. *time travel*), they are equally convinced that the future will play out online. 82 per cent of the 9- to 13-year-old interviewees agree “fully and completely” or “more” with the statement that in future, it will no longer be possible to be entirely offline. In contrast, only 70 and 71 per cent of adolescents and young adults respectively share this opinion. The detailed age curve reveals that this optimism is felt most keenly at the age of twelve: in total 52 per cent of children at this age believe that a life without Internet will not be possible in future.

Future significance of the Internet



"It'll just get more exciting; more will come from the Internet. In the end we'll be able to project everything in thin air, and I think the Internet will get really important for me, too. Well I believe that later we'll be able to travel into the future, travel into the future or in the present or the past. I really believe that." (aged 9-13, m)

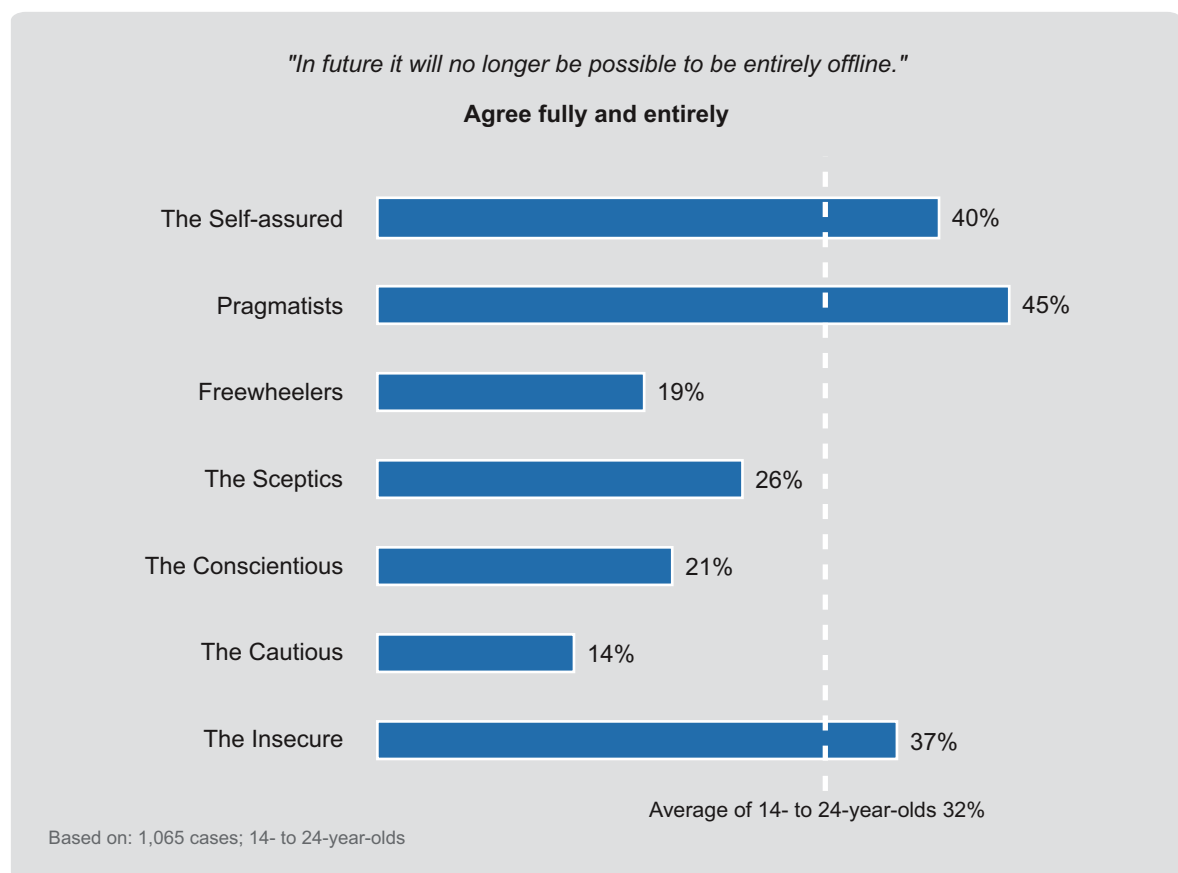
"I think that the Internet will get more important, because even now you can't get a job without it. And what's really crazy I think is that sometime there'll be people who'll be sitting with their computer in the car, while they are driving." (aged 9-13, m)

"I think we'll spend a lot of time with it in future. Lots of people do it already, and it's just developing more. [...] And then I think most of us will tend to be inside and sitting in front of the computer, writing or skypeing or whatever instead of going out." (aged 9-13, f)

Adolescents and young adults also expect the Internet to maintain stable or acquire increasing significance in their personal future.

But there are distinct milieu-specific differences in these age segments: 40 per cent of the *Self-assured* and 45 per cent of the *Pragmatists* are firmly convinced that it will not be possible to be entirely offline in future. In contrast, a good quarter of the *Conscientious* and the *Sceptics* assert that it is most definitely possible. The *Freewheelers* on the other hand believe that the Internet is a 'youth thing' and a pastime. They do not perceive much space for it in their personal futures, shaped by family and gainful employment.

Milieu differences vis à vis the future significance of the Internet



“Yes, I believe that contact then will only be possible via Internet. And then I’ll only actually speak on the phone with my mother.” (aged 14-17, m)

“In general I think that the Internet will hold on to the role it currently has. A big role. But I don’t think the Internet will change in any big way; if anything does it’ll be the technology. That there’ll be tons more devices...it used to be the iPod and now it goes online, too.” (aged 14-17, f)

“I think then not so much as now. Then I’ll have a job, my own family. And I won’t sit around the whole time on the computer or using my phone.” (aged 18-24, f)

“For me, I think, it’ll always be important. Not in the sense of me needing it, but I do think that it will be essential for any job, the Internet, because quite simply... this globalisation, it just happens so fast. And I just don’t think they’ll reinvent the wheel. And although there will be these special things like Jenny just said, things like a fridge... and you can see it now that you go out there and your car has already started up.” (aged 18-24, m)

As we have seen in previous sections, the age-dependent differences in Internet use among young people play out in smaller intervals compared with the adult generation. Although a common feature of all age groups is the trend towards mobile Internet use, it is apparent already that children display a significant openness for alternatives to smartphones. They may be currently unable to participate fully in a digital sense due to their age-related restrictions, but it is fair to expect that by the time today’s 9- to 13-year-olds have reached the age of 16, substantially wider modes of use will already have become established.

5.5 The parent-child relationship in digital matters

The majority of today’s younger generation is satisfied or even very satisfied when it comes to their relationships with their parents. The quantitative survey reveals that 90 per cent of the children interviewed, as well as 88 per cent of the adolescents and young adults, are satisfied or very satisfied. In principle, therefore, this provides a solid basis for a trusting approach to one’s parents. It follows therefore that – for all the lifeworld distinctions that do prevail – they are most commonly considered role models and important contacts by adolescents and young adults in a plethora of questions relating to life planning, for instance professional orientation and also issues of everyday life. There are no real indications of attritional struggles between the generations at this age. Quite often the relationship between parents and children is primarily harmonious.

But this also means that (particularly) adolescents and young adults have difficulty in consummating the delineation from their parents that is so typical of this age group. They find but scant opportunity to remain incomprehensible entities to their parents, or places they can occupy as their personal domains. And so it is most commonly the online communities – so far at least – that can be considered the exclusive realms of young people. They are viewed as territories that the younger generation was first, and for a certain time at least the only ones, to open up. But changes are already becoming apparent: for instance one of the reasons for the noticeable tide towards the messaging service

WhatsApp is that increasing numbers of parents own a Facebook profile, hence demystifying this realm – even if they refrain from adding their own children as friends.

But even without this parental conquest of the putative bastions of the younger generation, the use of digital media is a weighty topic between parents and their children. Parents appear gripped by a, sometimes persistent, state of high alert when considering the Internet use among their offspring, although frequently without any idea of precisely what they are meant to undertake.⁴² And the often-times older children pick up on this uncertainty: parents have common difficulties communicating why they consistently warn children to be cautious in their use of the Internet. As long as they are young, at least until a certain age, the children accept these defined rules, even if they are unable to understand why certain things are permitted while others are forbidden. But as soon as they turn 14, the adolescents insist that the generalised parental warnings possess little meaning and that they feel overwhelmingly superior to their parents when it comes to Internet competency.

It is therefore important to ask up to which point parents are in a position to influence, or even participate in, their children's Internet usage, what form this may take, to what extent they are deemed competent contacts and at which point the parents – from their children's perspective – are simply left trailing. We will show how this generation is experiencing a process of cutting the digital umbilical cord and to what extent this corresponds with the general development in parent-child relationships.

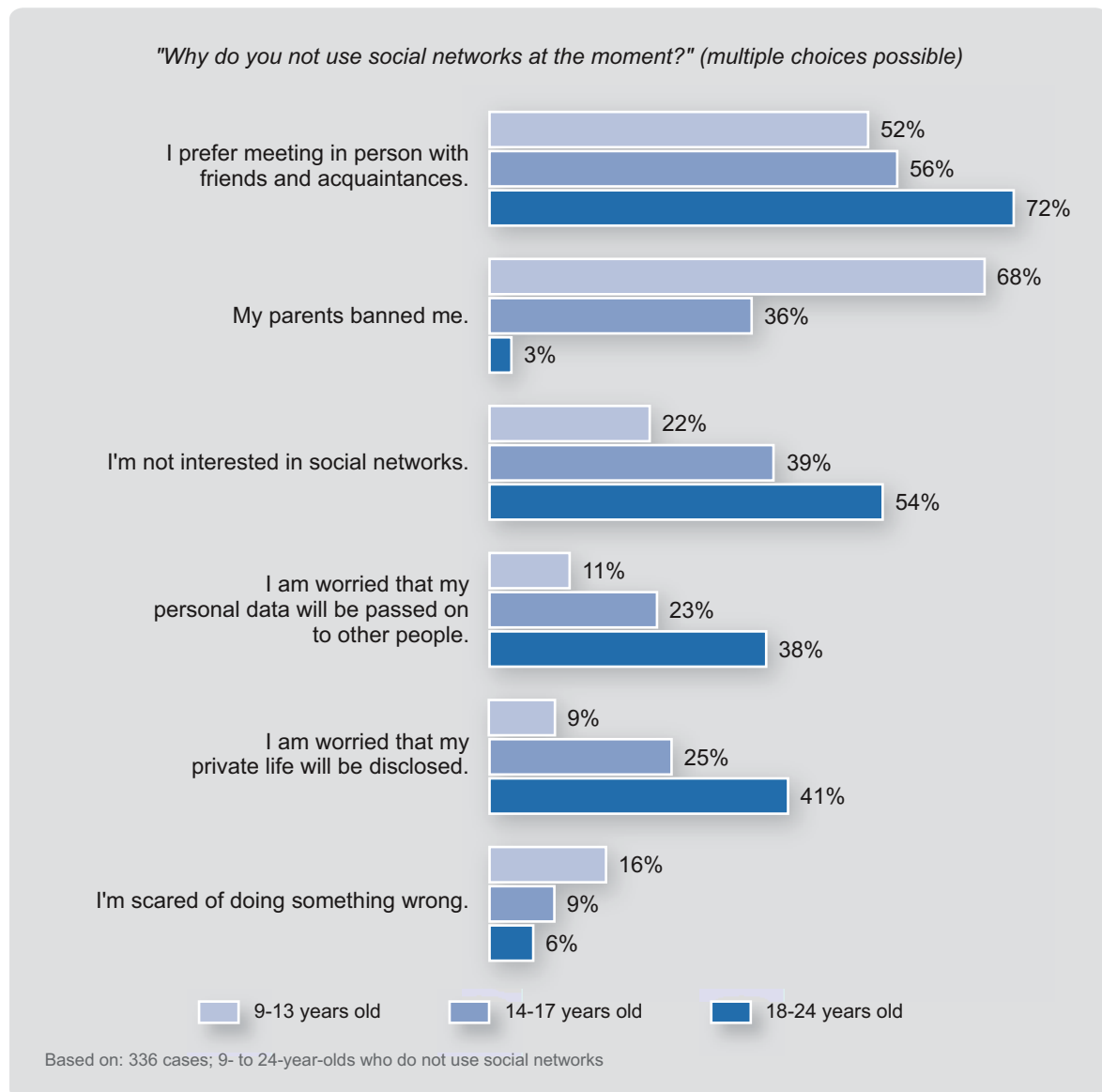
Tight controls on Internet use among children, easing as they grow older

Parents continue to exert significant influence on the way their children use the Internet. 14 per cent of the 9- to 13-year-olds do not use the Internet at all, 67 per cent of whom state that parental bans are the reason. And even if the parents allow their children to access the Internet, they monitor how and when it happens, and for what length of time. They regulate both times and durations of use, as well as the content the children access.

On the one hand the parents actively seek discussion on the content used, as we see in the qualitative survey. On the other hand they control which Internet sites are frequented and install in this respect clearly defined rules, as evidenced in the example of online community use. 68 per cent of children who are not registered in any online communities state the reason as being parental bans. Girls state this reason more frequently than boys: while 75 per cent of girls eschew frequenting an online community based on a ban, this applies to only 63 per cent of boys. The reasons for this may be down to a greater conformity to rules among girls themselves or also a more distinct desire on the part of parents to protect girls.

⁴² Cf. also the public debate on the best-selling book "Digitale Demenz" by the author Manfred Spitzer (Spitzer, Manfred 2012: *Digitale Demenz. Wie wir uns und unsere Kinder um den Verstand bringen.* Droemer, Munich). Review in the *Frankfurter Allgemeine Zeitung* (FAZ) dated 10 September 2012: Manfred Spitzer, "Digitale Demenz – Mein Kopf gehört mir". Online under <http://www.faz.net/aktuell/feuilleton/debatten/manfred-spitzers-digitale-demenz-mein-kopf-gehoert-mir-11883726.html> (last accessed on 11.12.2013).

Reasons for not using online communities



62 per cent of children registered on Facebook are monitored there by their parents. This is only true of 23 per cent of adolescents, while merely just under six per cent of young adults are subject to this rule. The controls are strictest for children – when it comes to Facebook. In contrast, the interviewees are monitored to a lesser extent if they are registered with a different online community. Parents permit roughly one third of 9- to 13-year-olds to create a Facebook profile on the condition that the children add them as friends. This applies to just shy of ten per cent among adolescents and only five per cent among young adults. Results of the qualitative survey indicate the belief among children that in imposing these rules, their parents are motivated by concern (*“They don’t want anything to happen to me on the Internet”*). But the qualitative findings also reveal numerous examples to emphasise how, out of lack of understanding for the reasons and the belief their parents can no (longer) protect them on the Internet, adolescents and young adults learn to elude these parental controls.

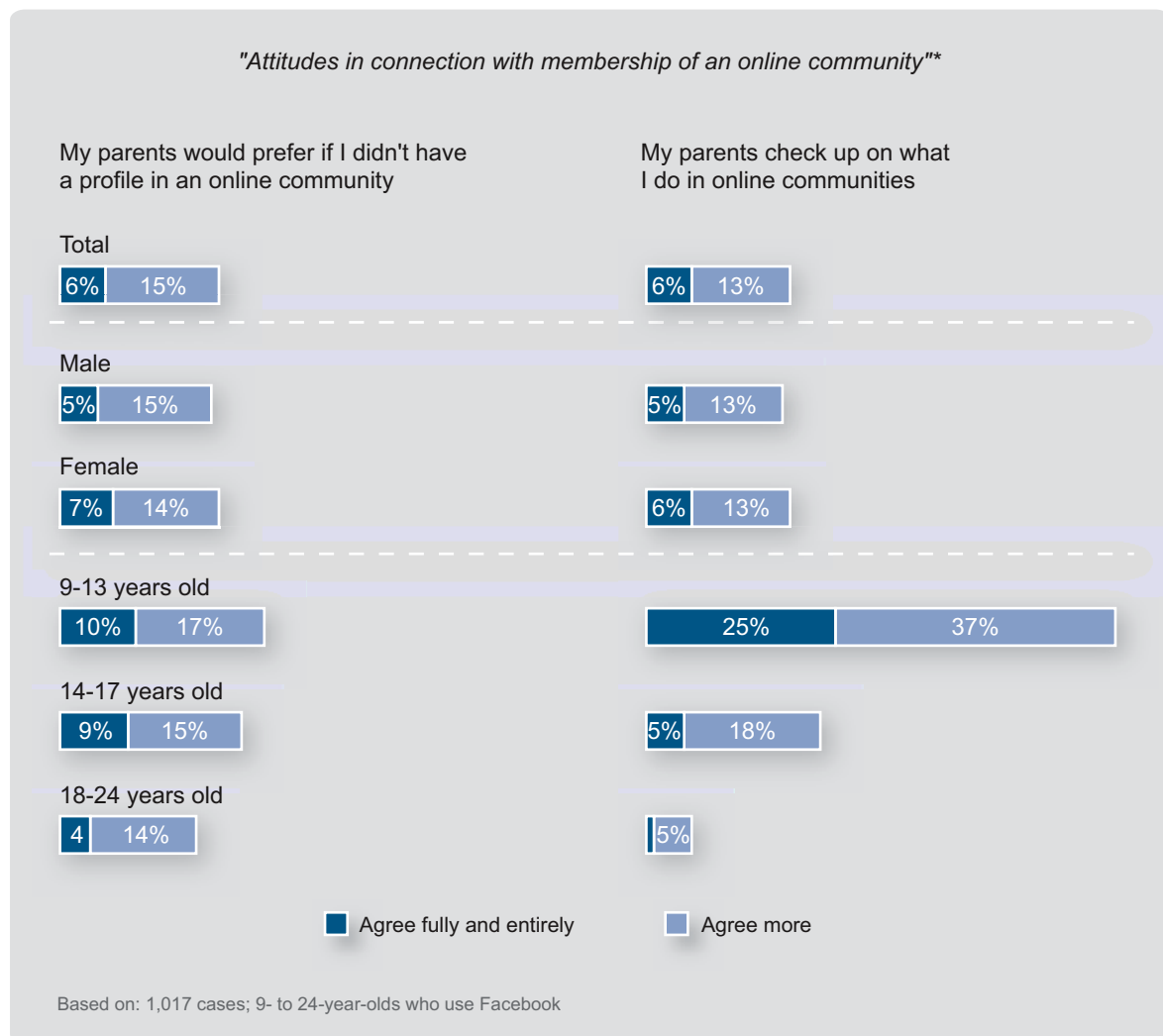
“So when my mum was gone we just entered my real name. Then my mum turned up and said I can’t do that to be registered on Facebook – in sixth grade, [...] so then my dad came and changed my name to Joe Bloggs [...]. That was mean. And then at some stage I found out the password and so I created a proper account.” (aged 9-13, m)

Facebook membership as a means of control

Increasingly, many parents are starting to ‘conquer’ the digital realms their children inhabit in order to exert greater control. In consequence they create their own Facebook profiles or use WhatsApp to check that the time limits imposed on the use of WhatsApp, for instance, are observed. And so the manner in which parents manage communication channels has changed in line with their increasing dissemination: quite frequently a form of media upbringing is observed, intended to improve access to the children (e.g. featuring a request to finally come home now, sent via WhatsApp). But the adolescents are miles ahead in terms of competency, and so this Facebook and WhatsApp ‘monitoring’ barely functions as they grow older.

Online behaviour is predominantly self-regulated above the age of 14. Parents define few rules – and if they do they are perceived by the adolescents as ill-equipped to monitor the standards they do set. Because from the age of around 14 and on, as qualitative findings have shown, most adolescents have developed elaborate strategies to ‘mute their parents’ or to grant them merely sketchy insight into their online life; and, in the perception of the adolescents and young adults at least, the parents usually fail to recognise this strategy.

Monitoring of Facebook use



So it becomes increasingly difficult to enforce rules as the younger generation grows older: only 36 per cent of adolescents who do not use an online community refrain from registration on these platforms based on a parental ban. Young adults face practically no bans. But the higher the level of formal education the children enjoy, the less likely the parents are to impose this kind of ban. Whereas 20 per cent of adolescents and young adults in the segment with lower degrees of formal education are not registered in an online network due to parental bans, this applies to only eight per cent in the segments with higher formal education.

However, the typical milieu distinctions emerge above the age of 14. The parents of the *Insecure* resort most frequently to banning their children from using online communities (32 per cent). Roughly 18 per cent of the *Cautious* also experience a corresponding parental ban, as well as 17 per cent of the substantially more Internet-attuned *Pragmatists*.

“Sometimes I’m just not tired and then I simply stay awake and hang around on Facebook, that kind of stuff. My mum says that everything’s fine so long as I get out of bed on time in the morning and can concentrate at school.” (aged 9-13, m)

“I have to put my phone away (at a) certain time. My mum has also got WhatsApp for herself now, so she can see if I’m still online in the evening. But I have blocked her a few times if I stay on for a bit longer. I don’t get into trouble if she sees that I was still on, although I should have been ages ago, but she does sometimes write that I have to go to bed now.” (aged 9-13, m)

“Well I don’t have any pictures up where you see me from the front. I’m not allowed to. [...] And they [her parents] are on Facebook, too. So they can check up on me and stuff.” (aged 9-13, f)

“A mate of mine accepted his mum but then immediately stuck her on the blocked list. That doesn’t make sense, either. She just doesn’t have to see everything you like⁴³.” (aged 14-17, f)

Earning media time

Various aspects of the qualitative and the quantitative surveys indicate plainly that parents influence the times when their children use the Internet, also. Most parents define the temporal framework within which their children are permitted to use the Internet. In this the spectrum extends from strict specifications in which compliance is monitored to loose agreements on the basis of trust.

Children are often afforded more generous online time budgets at weekends than they are on weekdays. But many can also ‘earn’ their media time. Parents exploit their children’s desire to spend time on the Internet as a motivation to complete chores at home or to bring back good grades from school.

But as the children grow older they start to exert ever-greater control over their own online time, provided they adhere to their everyday obligations – such as homework and chores. The qualitative findings elucidate that instructions issued to adolescents by parents refer more to content details such as uploading photos or disclosing individual pieces of information. Adolescents and young adults are no longer subject to strict regulations concerning online time. Nevertheless, the qualitative findings reveal that these days, an ‘online ban’ is perceived as the worst possible punishment – and acts so to say as the digital era’s ‘grounding’.

⁴³ Taken from the Facebook ‘thumbs-up’ function to indicate liking s.b./s.th. Use of this term has spread based on its function on Facebook. The platform offers the so-called Like Button, a ‘thumbs-up’ symbol with which one can express approval of, for instance, an Internet page, a comment, a photo and such like.

"It's pretty much left up to me whether I hang around on the computer for three hours or spend the same time watching TV. I can also do it like this: one hour TV, then one hour computer. [...] My mother said that would be better for me." (aged 9-13, m)

"We recently introduced a smiley system. It means when I'm meant to do some chores around the house I get a smiley. And I can swap that smiley for other activities like computer or watching TV. It works pretty well, because...I don't know. Then everyone does their bit around the house and gets their reward. Also half an hour extra playing football in the evening. And that's pretty cool, actually." (aged 9-13, m)

"No direct restrictions. It's hard to check, of course, but they wouldn't like it if I spent the whole day playing games on the thing. But as long as I use it to phone people, to text or to communicate it's fairly ok. Just not games. But who's going to know?" (aged 14-17, m)

"Nah, not really. I mean once in a while I'll get something like 'put your phone away', but nobody actually really listens." (aged 14-17, m)

"Well up to around two years ago it was pretty much that my mum would check in the evening to see if I'm still on my phone, stuff like that. But now my mum doesn't really care if I sit around with my phone till two in the morning. I have to get up early in the morning and go to school, so I guess because of that there really aren't any bans or stuff." (aged 14-17, f)

Things that cost money are up to the parents

The qualitative survey plainly shows that the parents pay particularly strict attention to how their children deal with Internet content that costs money. In most cases the children are not allowed to decide autonomously to spend money online. They are also lacking in the requisite financial resources or means. Children require the consent, as well as the support, of their parents if they wish to purchase something online. So online shopping portals such as Amazon or Ebay are among the Internet applications that do not acquire relevance until beyond the age of 14. Additionally, in many cases adolescents and young adults have already developed their own rules for safe online shopping. We find this confirmed in the qualitative findings. Pages situated outside of Europe above all are out of bounds. Pages that are PayPal-enabled, for instance, are considered trustworthy.

But for many adolescents the parents still manage the actual transactions. In contrast, parents of young adults tend only to become involved when something has 'gone wrong' – although in some instances this applies to adolescents, also. What this represents, for instance, is a mutual learning experience for parents and children alike in how to handle credit card data on the Internet. Or in other words: even the parents have failed to appreciate the risks in advance.

"Well I would only buy stuff on pages I already know. Major sites like Amazon and Ebay where you know that they...basically sites that you know. And if you don't trust the page that much I'd only pay by PayPal because it goes via PayPal and you don't have to state your account number or anything like that. And apart from that, well, we've all seen how that works even with bigger stuff. So I really don't bother myself about it at all." (aged 14-17, m)

"Perhaps it's better not to take any old Chinese pages. First off it takes four weeks, and then you have to pay customs. Most stuff should come from England or Germany. Not really Asia. That's too uncertain for me. How am I meant to ask for my money back there? I'm not about to sue a massive company because of 50 cents or so." (aged 14-17, f)

"Everything to do with payment my dad takes care of. I stay out of it." (aged 14-17, f)

When it comes to questions of the Internet, parents increasingly lose credibility as their children grow older.

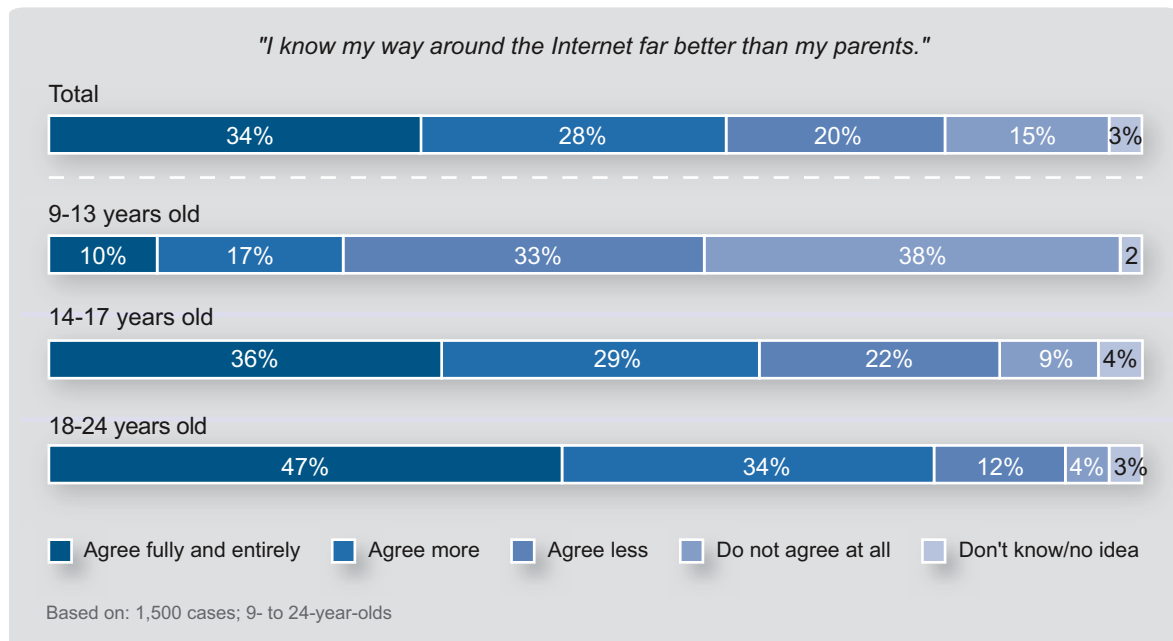
For 9- to 13-year-olds, parents are the first ports of call besides older siblings when it comes to Internet use in general or actual risks concerning the Internet. But more and more the relevance of parental advice disappears as the children grow older. Adolescents and young adults are more likely to obtain their Internet advice from friends. This displacement runs parallel to what in most areas is a stronger orientation towards the peer group at this age.

Furthermore, from the age of around 14, adolescents acquire greater confidence in their own skills in handling the Internet as their own subjective perception of Internet competency overtakes that of their parents. Roughly one third of children assume that they know their way around online better than their parents. But already 65 per cent of adolescents and 81 per cent of young adults are fully and completely or more convinced of a superiority over their parents when it comes to digital topics.

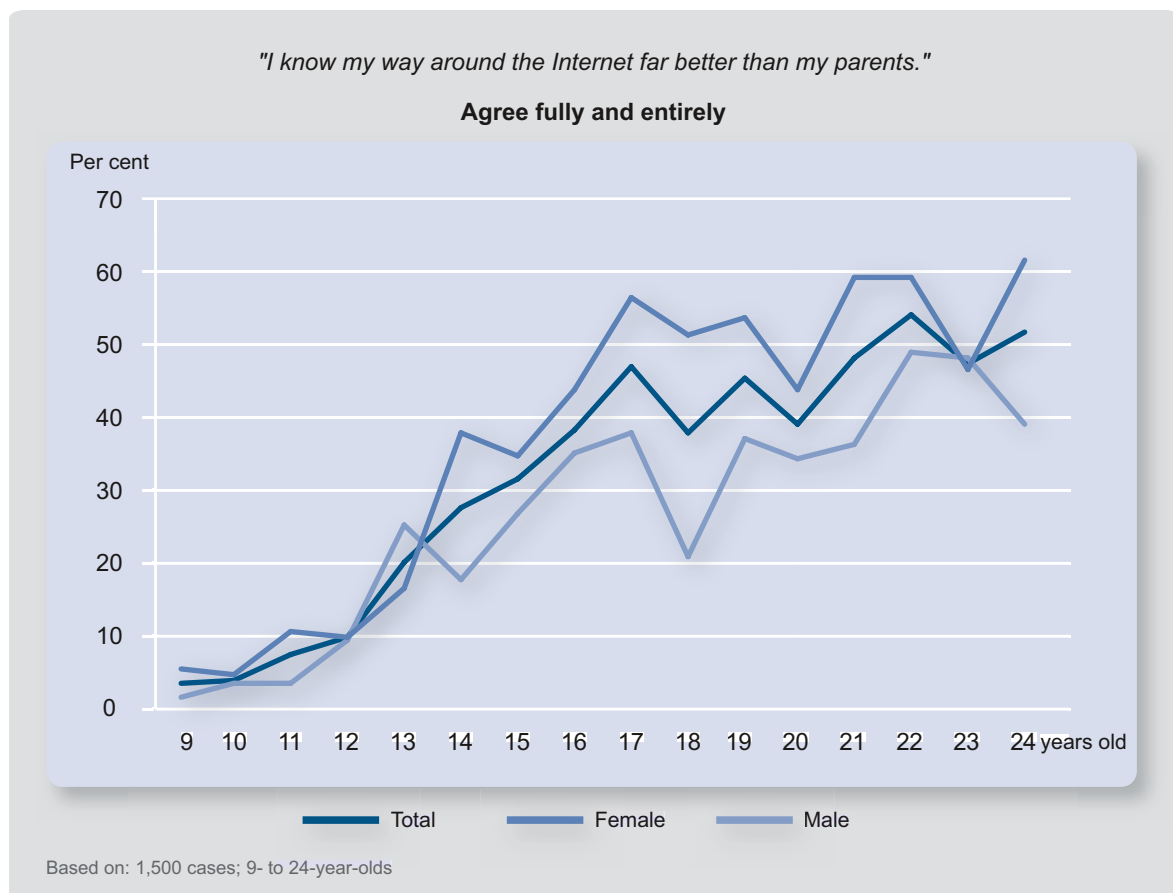
The detailed age curve demonstrates that self-assurance among adolescents reaches its first apex at the age of 17 already.

But the following is equally true of 9- to 13-year-olds: the children acquire ever-greater confidence the more time they spend on the Internet. 65 per cent of children who are online daily consider their own Internet skills to be very good. But the proportion of children who use the Internet every day at this age is comparatively low, a mere 22 per cent. Almost one third of children who use the Internet fewer than a couple of times each month assess their own Internet skills as *substandard* or *inadequate*. In contrast, merely just under five per cent of children who are online on fewer than a couple of occasions per month nevertheless consider their own Internet skills to be *very good*.

Age differences in Internet skills

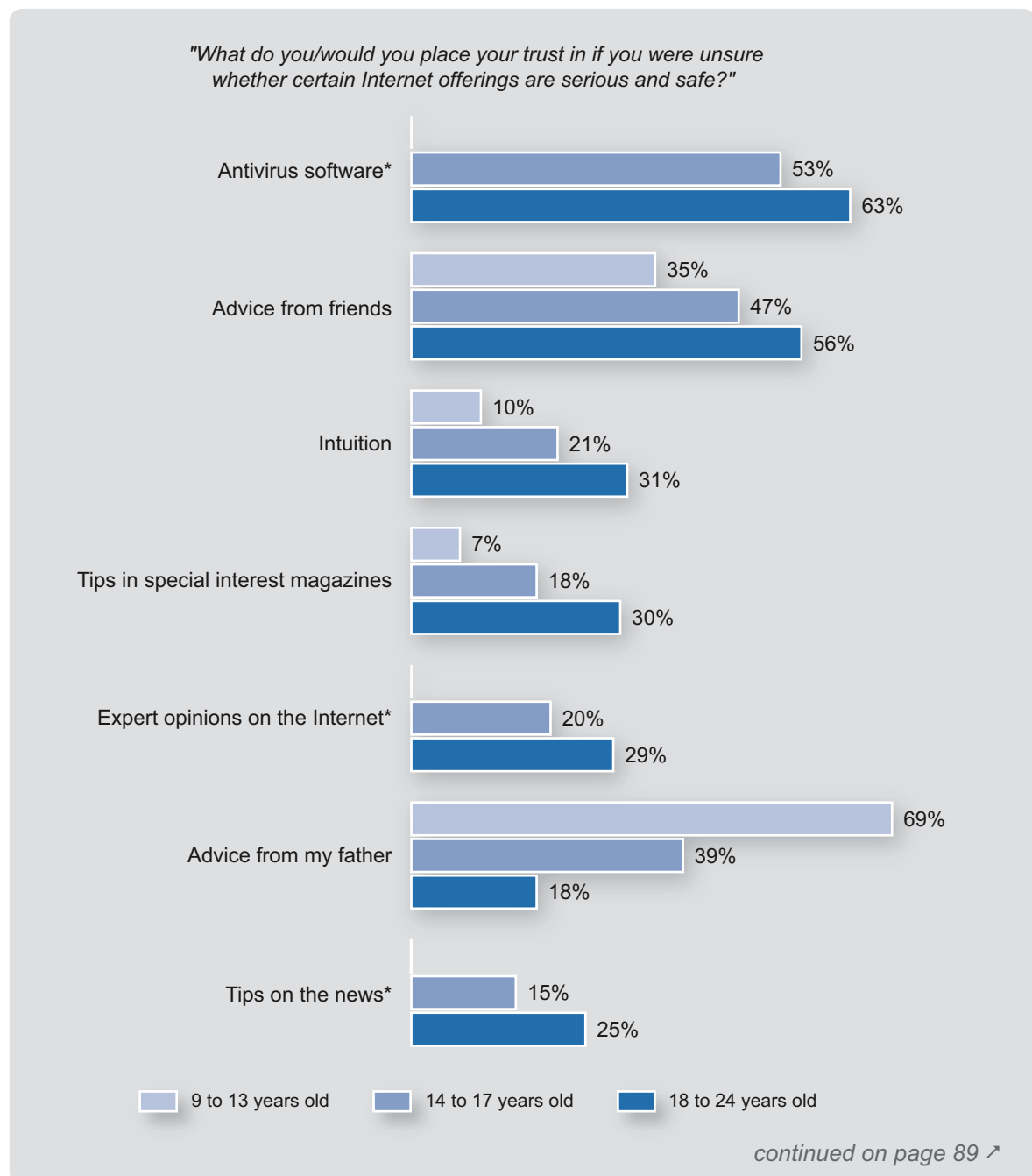


Development of Internet skills

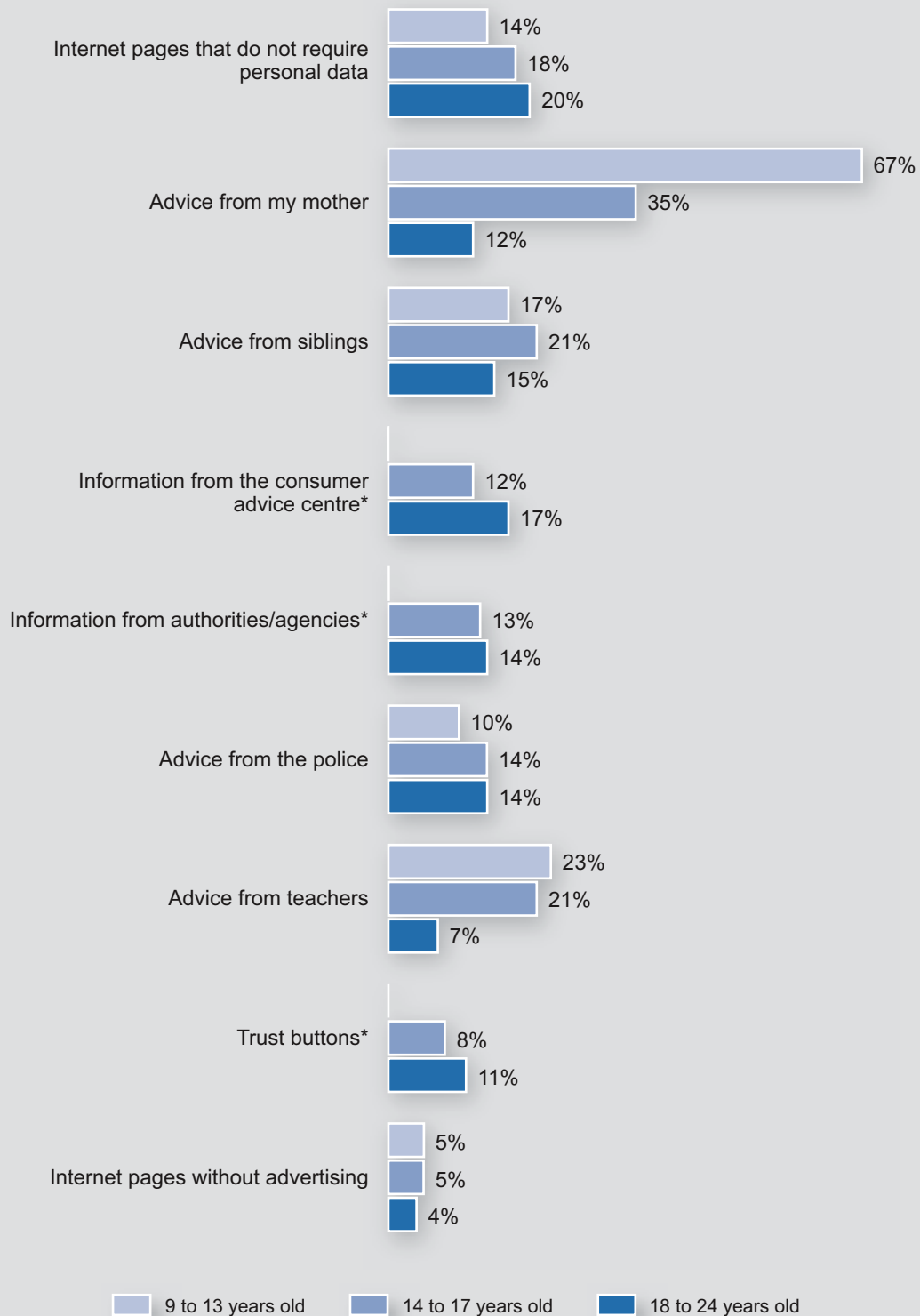


But unlike among adolescents and young adults, the high level of Internet skills that children attest themselves does not impact negatively on the parental role as contact persons: parents are seen as competent advisors even among children who go online daily. Almost 70 per cent of 9- to 13-year-olds would ask their parents for advice or help if they had questions concerning digital topics. One third of the children interviewed consult with their parents every time when a website they are unfamiliar with is accessed,

Advisors in matters of the Internet



continued on page 88



Based on: 1,457 cases; 9- to 24-year-olds who use the Internet or intend to use it in future

*Based on: 1,051 cases; 14- to 24-year-olds who use the Internet or intend to use it in future

Further, the qualitative findings reveal that adolescents in particular perceive their parents' critical appraisal of online topics as unpleasantly focused on problems. In the mindset of adolescents, discussions with parents predominantly consist of generalised and effectively superficial, i.e. quite unspecific, warnings to be cautious. Parents appear poorly equipped, sometimes almost unequipped, to explain why they insist on the adherence to certain rules of Internet use or on the basis of which risks they issue their warnings. In contrast, discussions on what is fun on the Internet or what is worth learning about seem quite rare.

"Usually I tell my mum if for instance someone asks me after my hobbies or my name. So I tell her and then I answered 'you don't have to know that'. Something like that." (aged 9-13, f)

"We had the topic in the family and on trips with the police. [...] About people who can be bad in chats and arranging to meet, unless we know each other from before, and how to handle the Internet. [...] But we also laugh at funny videos and talk about them, too!" (aged 9-13, f)

"Actually our parents want to protect us. Basically they don't want anything to happen to us. But on the other hand, dunno, it's all just a bit stupid with the rules." (aged 9-13, f)

"My mum just tells me not to give out any personal details." (aged 14-17, f)

"It's none of their (the parents') business what I do on the Internet." (aged 14-17, f)

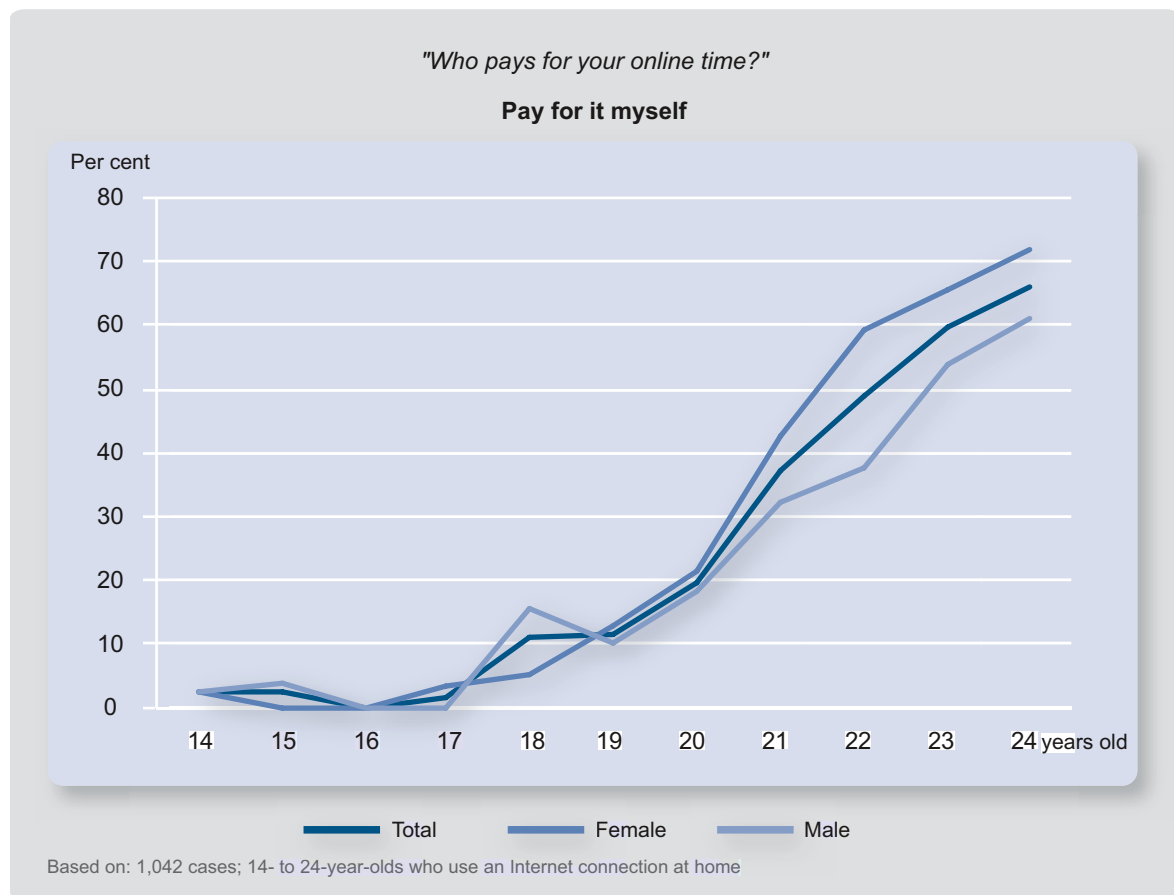
"I've got more experience than my parents." (aged 14-17, m)

Parents finance online access – except for smartphone

Parents also have an important role in the lives of children and adolescents as the financiers of Internet access. It goes without saying that children do not have to pay for their own Internet access at home; but this also applies widely to adolescents. The quantitative survey shows that only two per cent of adolescents are required to pay for their Internet connection at home. Ultimately almost 40 per cent of the young adults carry the costs themselves.

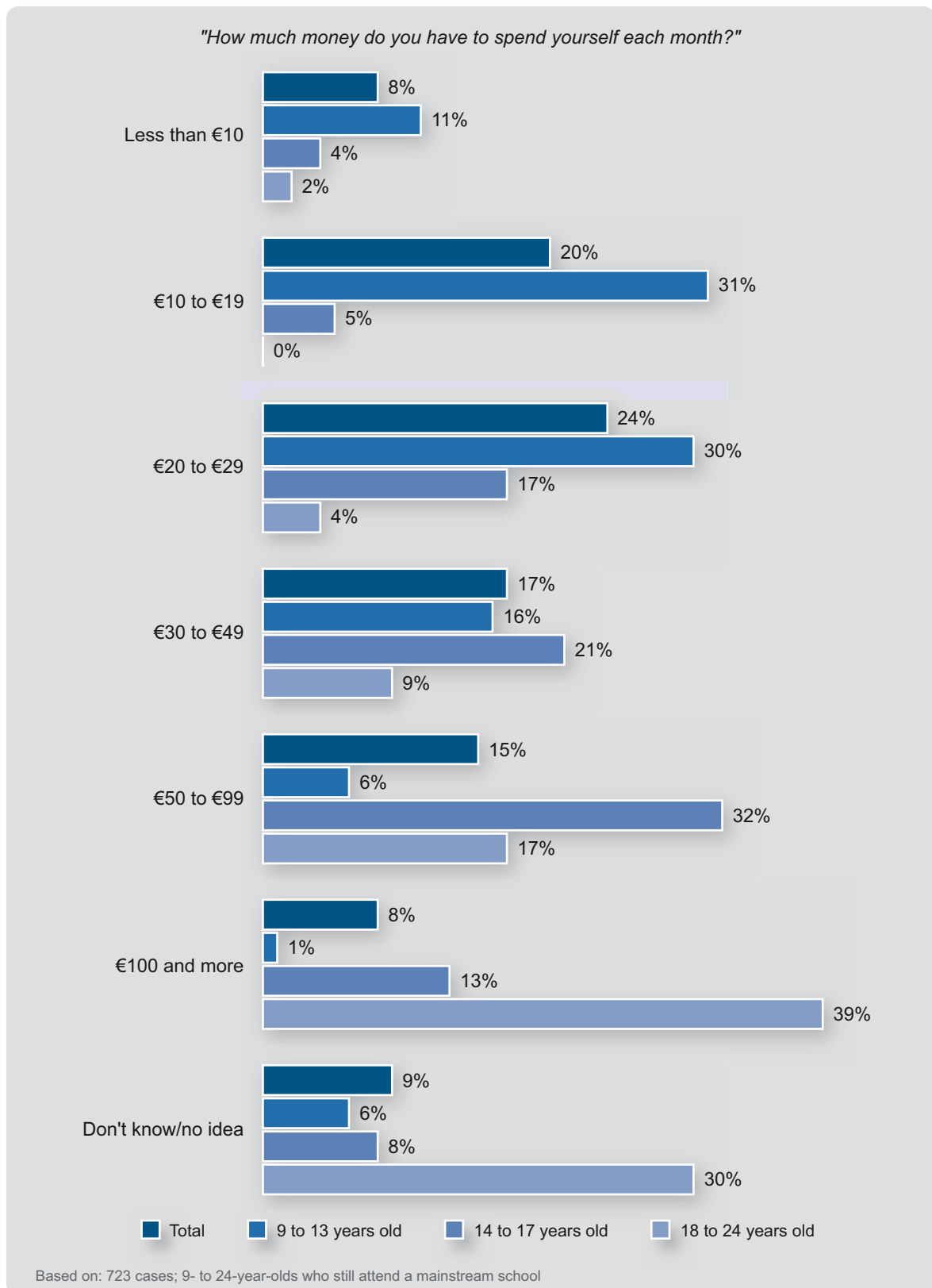
A glance at the detailed age curve indicates that once the children have acquired the age of majority, the parents start to also entrust them with financial responsibility: at the age of 18 eleven per cent carry the costs themselves. This trend then rises continuously.

How Internet costs are financed

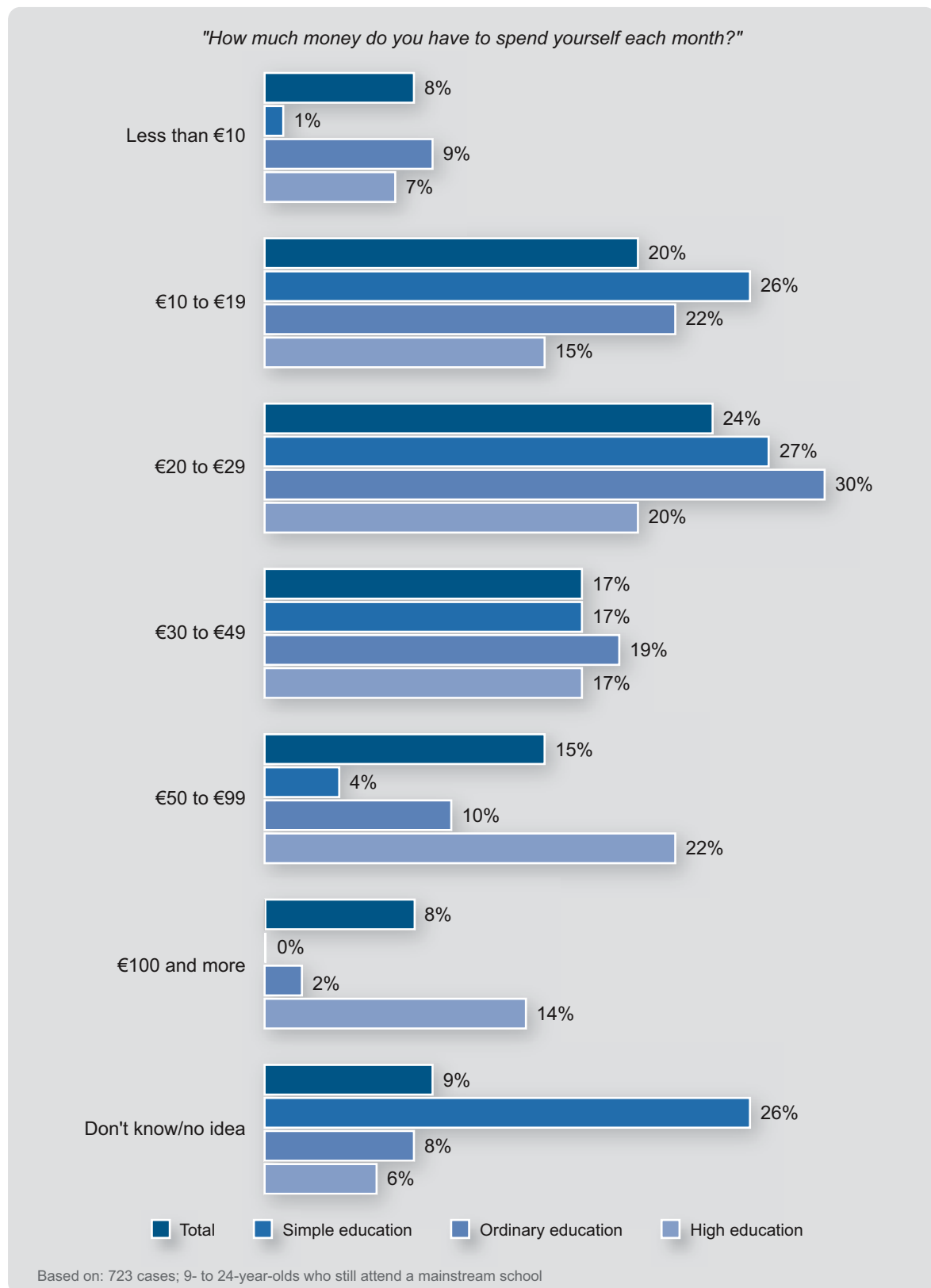


What opportunities do young people have today to finance their own Internet connection? What we see when we look at the financial budgets that children, adolescents and young adults have at their disposal is a clear validation of the significant distinctions between the various age groups. Two thirds of the children interviewed receive between €10 and €29 monthly in pocket money. 28 per cent of the children are very satisfied or rather satisfied with this financial budget. Over half of the adolescents who still attend school have a monthly allowance of between €30 and €100. Of the young adults who remain at school, 17 per cent have been €50 and €100, while 39 per cent even have €100 and more. But for many adolescents and young adults who remain at school, having a larger amount of pocket money goes hand in hand with the responsibility of paying the costs for their Internet use themselves.

Disposable budget – Age



Disposable budget – Education

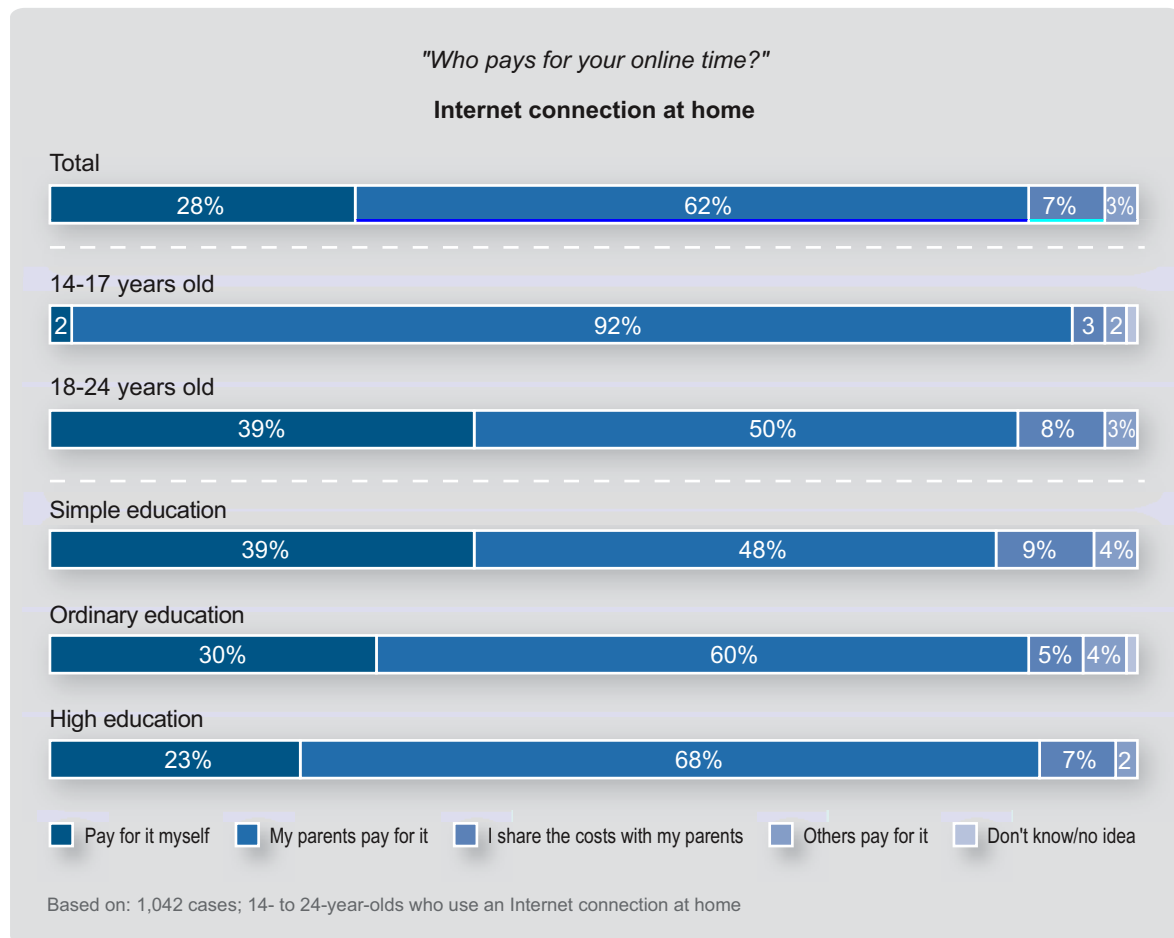


The principal difference in terms of the disposable budget runs along the same line as the level of formal education. For instance 28 per cent of the interviewees with low levels of formal education receive between €20 and €29 pocket money monthly at an age of 14. In contrast, only twelve per cent of those with higher levels of formal education are asked to get by on this comparatively meagre budget. Moreover, 32 per cent of those with higher levels of formal education have €50 to €99 per month, while only seven per cent with less formal education receive similar amounts.

What is clear: being online is considered a crucial element of social participation among children, adolescents and young adults. The lower the level of formal education, the more likely it is that the interviewees will be asked to carry their Internet costs alone. Yet precisely this group is required to cope with the lowest disposable budget. Among those with higher levels of formal education, the parents of 68 per cent of adolescents and young adults pay for the connection, while the same figure among those with lower levels of formal education is merely 48 per cent. Already apparent in the level of formal education, this finding indicates that social origins also leave their traces in digital participation – not only in terms of skill and habits of use, but also in the conditions of access themselves.

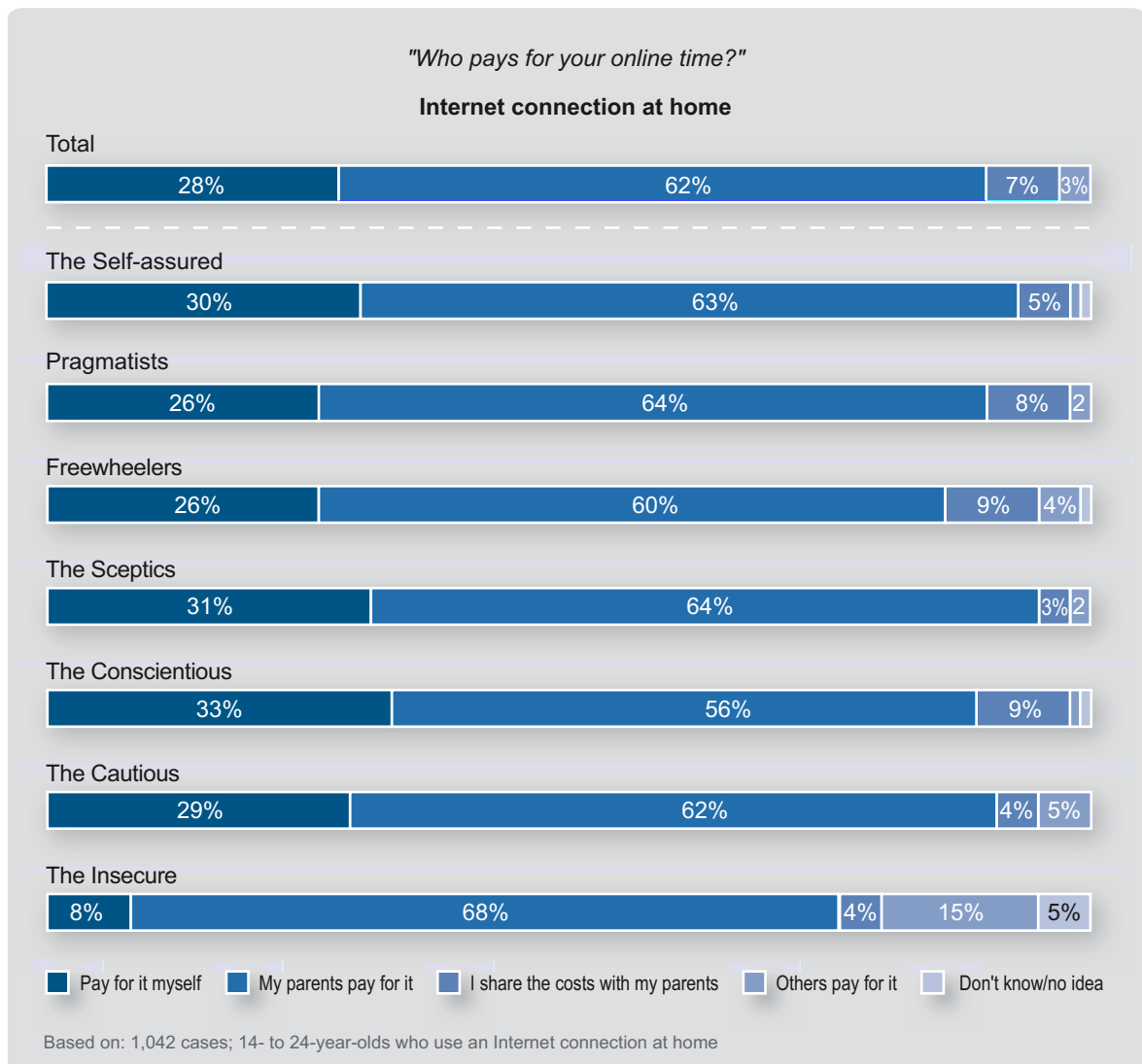
This trend is equally apparent with a view to the U25 Internet milieus. The quantitative survey shows that above all the *Cautious* and the *Insecure* are required to budget with comparatively meagre pocket money of under €20. Nevertheless almost one third of the *Cautious* are required to pay for their own Internet access at home. A good quarter of the *Freewheelers* (26 per cent) are asked to take financial responsibility for their Internet connection at home. But they can budget with a more generous amount (one third of the *Freewheelers* receive monthly pocket money of €50 to €99). In contrast, for instance, one third of the *Pragmatists* are given €100 and more in pocket money, but just under one third are asked to pay for their own Internet connection.

Internet costs (at home) – Age and education

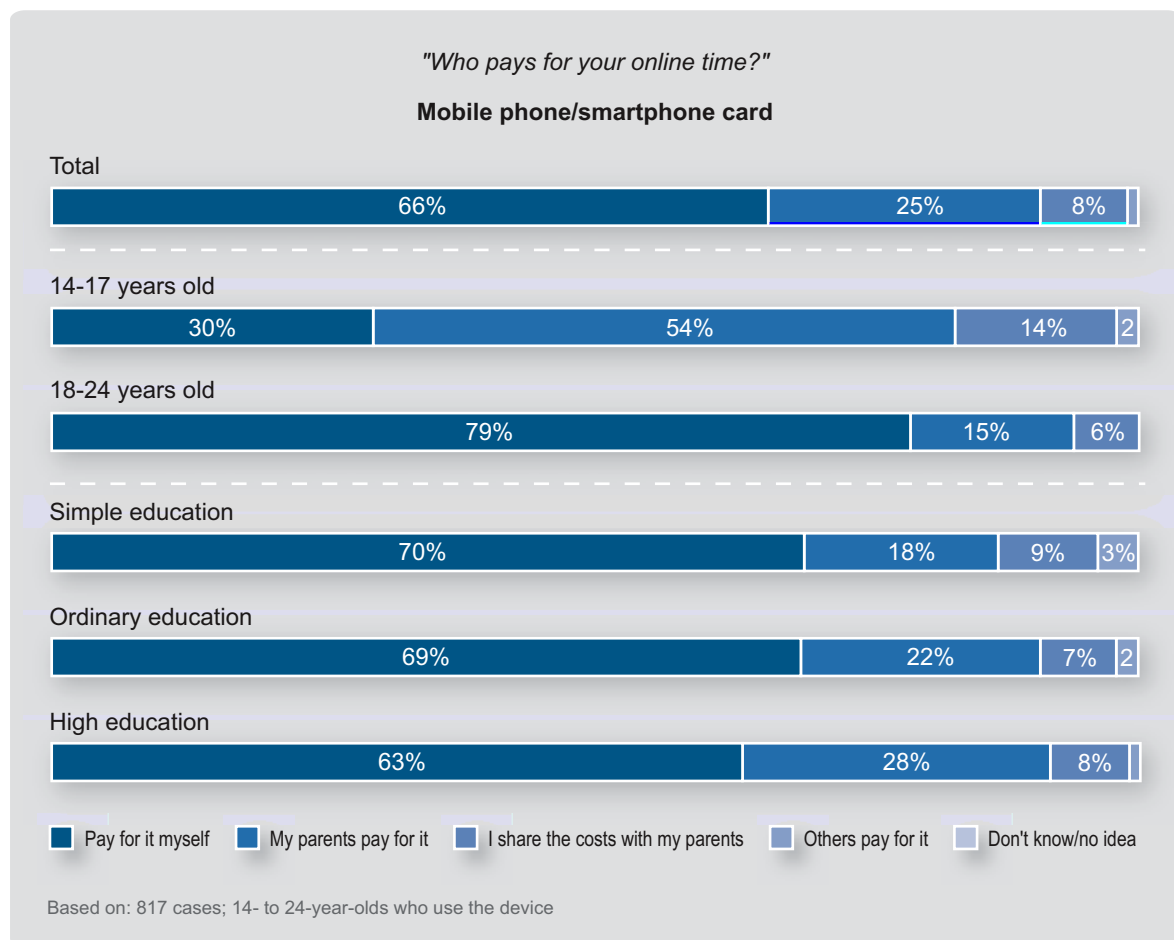


There are plain differences between the age groups when it comes to Internet access via smartphone. Here, too, the findings show that even at an adolescent age, parents increasingly transfer to their children the financial responsibility for costs associated with smartphones. 30 per cent of the adolescents carry the costs of their smartphone Internet access. Four out of five 18- to 24-year-olds pay for their own mobile phones – including the costs of data packages. After clothing, young adults expend the greatest portion of their resources on owning a smartphone. A consideration of the individual milieus shows that across all these segments, adolescents and young adults are asked to pay for the costs associated with their own smartphones. The *Conscientious* most frequently carry the costs for their smartphones, while the *Freewheelers* are least likely to dip into their own pockets.

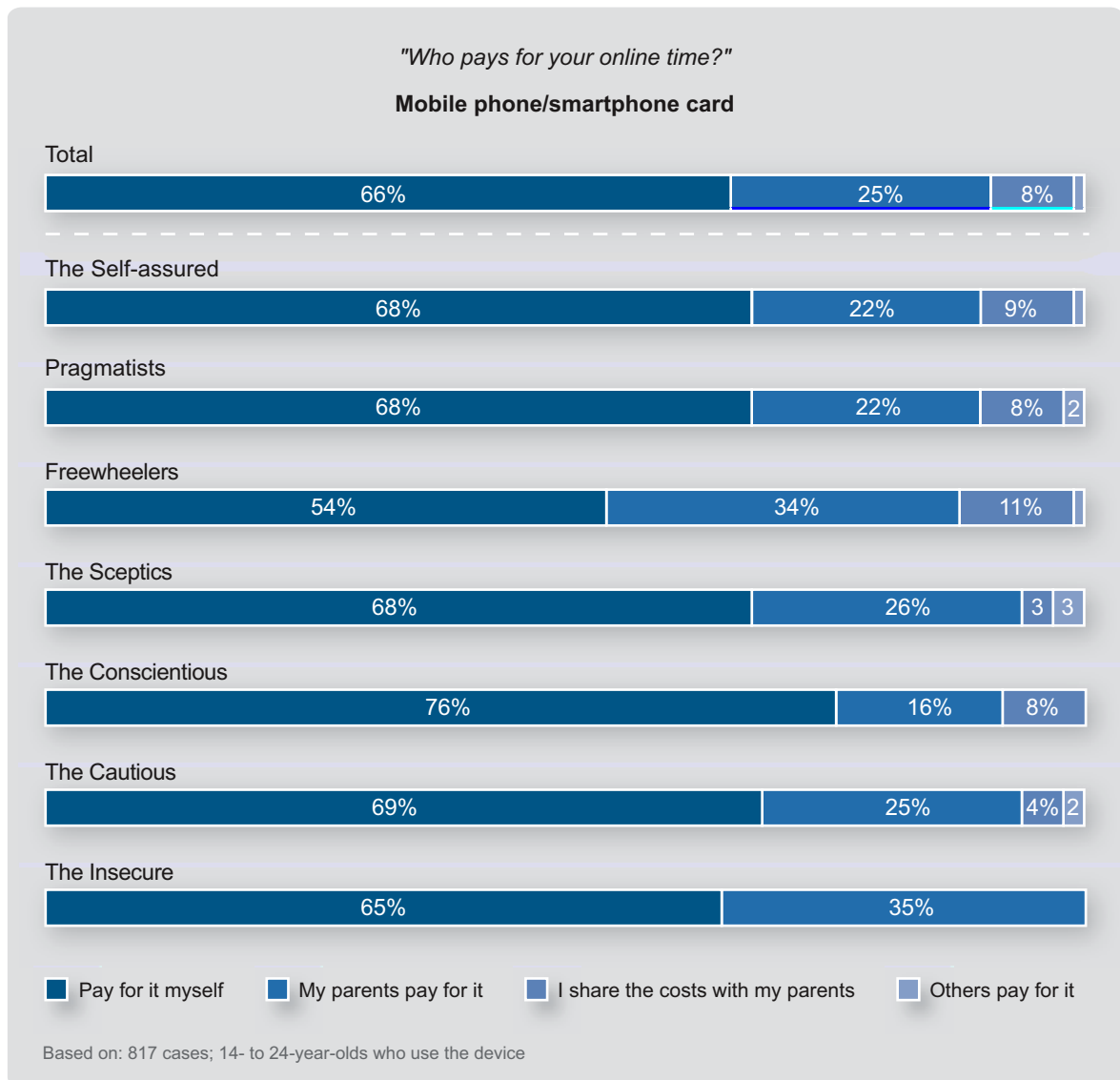
Internet costs (at home) – Milieus



Internet costs (at home) – Age and education



Internet costs (mobile) – Milieus



6. Opportunities and inequalities on the net: Social background as the gatekeeper to digital participation

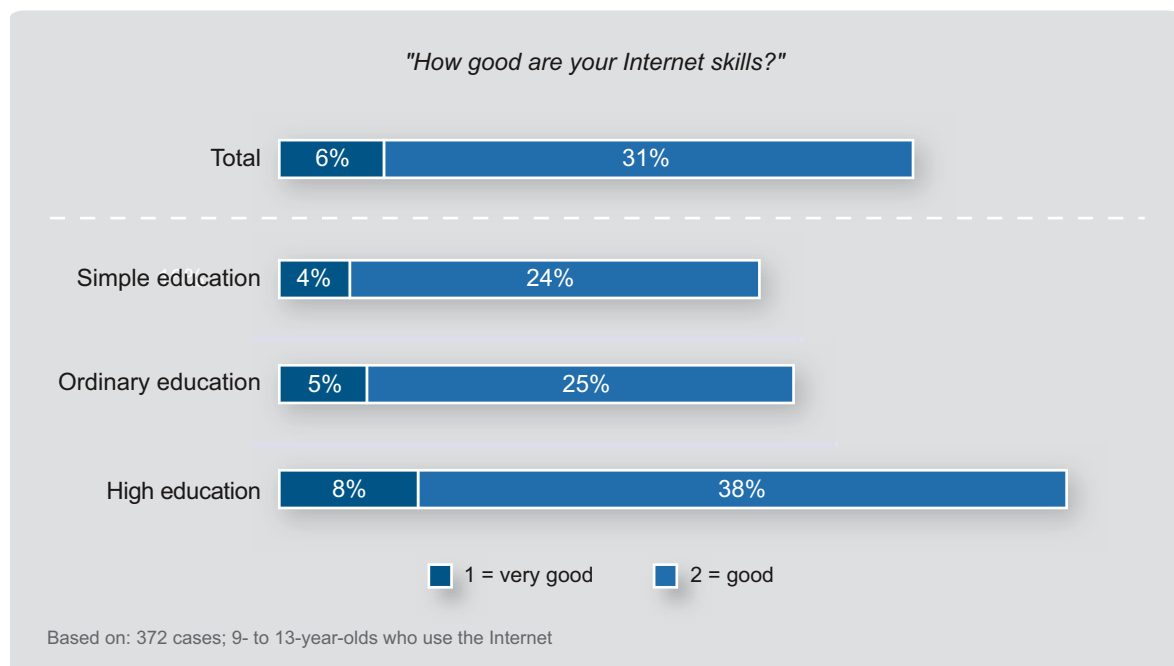
Differences in education are an important aspect of social inequality⁴⁴ that also extend to media use. The manner in which children, adolescents and young adults approach media is strongly correlated with their level of formal education, which furthermore displays equivalence with that of their parents. And the consequences can be fatal in an age where digital participation is tantamount to social participation. Hence the following shall cast a light on exemplary, central dimensions of social participation on the net.

6.1 Education

People with a lower level of education show less confidence on the net.

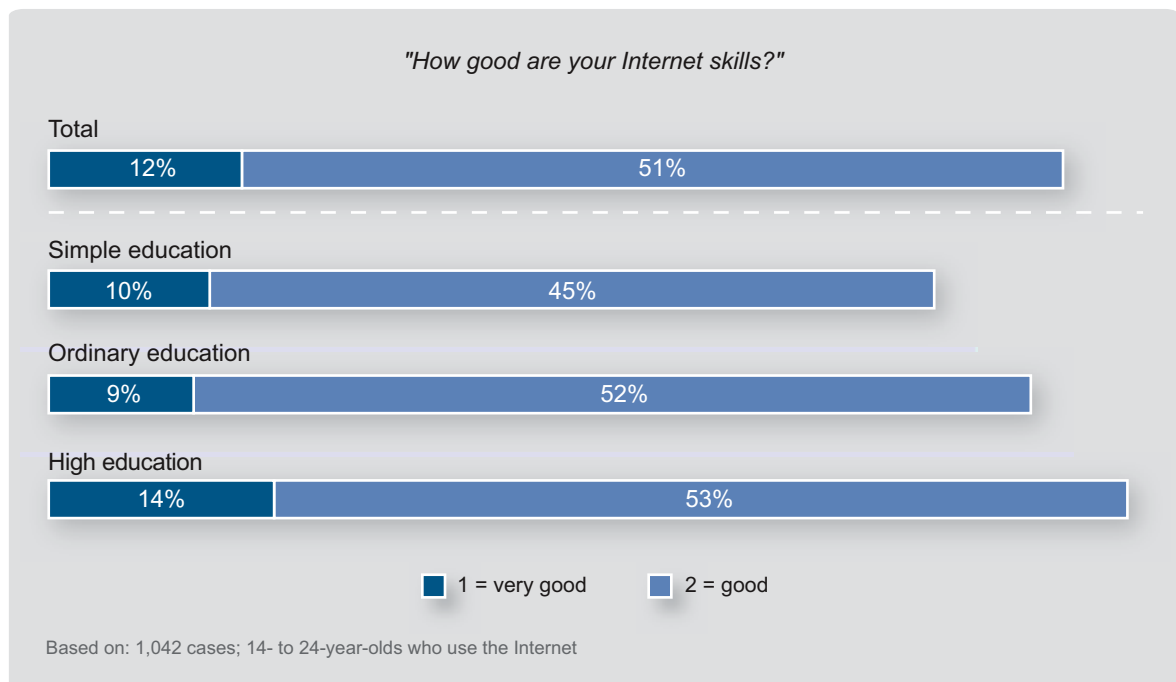
It is apparent that children with a lower level of formal education already take a dimmer view of their Internet skills than their peers with higher levels of formal education. This trend persists among adolescents and young adults. But the correlation between this subjective assignment of competency and the actual skills in handling the Internet is tenuous at times. Nevertheless it indicates that the self-assurance in handling the Internet, the assessment of opportunities and risks and also the variety in forms of use may differ. It follows that those with higher levels of formal education manifest greater self-assurance in navigating the Internet.

Internet skills – Children



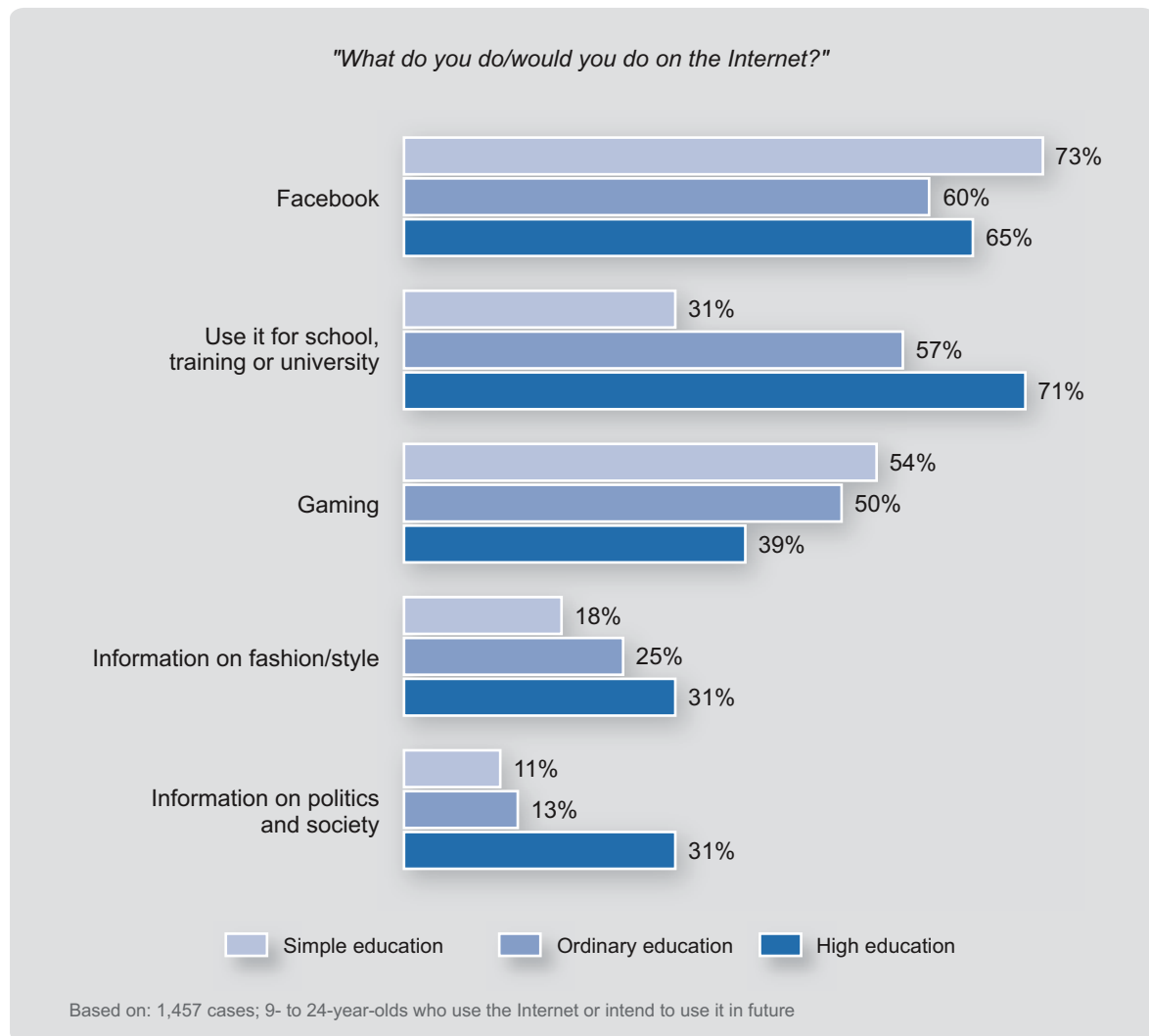
⁴⁴ Niesyto 2010: Digitale Medienkulturen und soziale Ungleichheit. In: Bachmair (ed.): Medienbildung in neuen Kulturräumen. Wiesbaden, p. 317ff

Internet skills – Children, adolescents and young adults

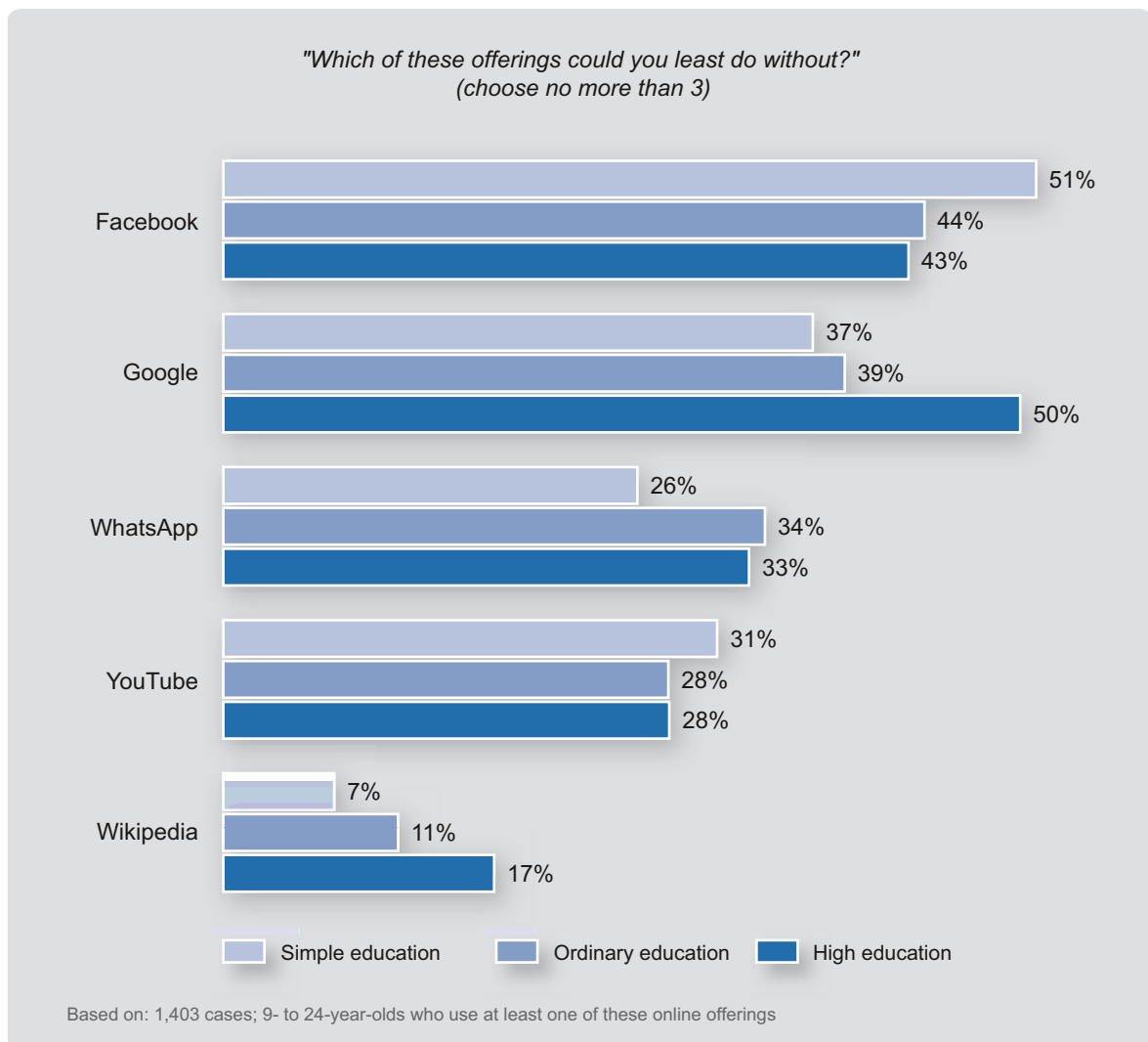


A brief review of the offerings used reveals a stronger slant towards entertainment and communication pursuits among those with less formal education and a more varied manner of use among those with more formal education, who indeed perceive the Internet as an information medium (in the traditional sense) and as an educational instrument. This finding runs parallel to a respectively narrower or wider understanding of what learning actually means among young people with differing levels of formal education. The narrower understanding of learning among those with lower levels of formal education, which is predominantly curricular and associated with school and measurable success in the form of good grades, prompts a misapprehension of the Internet in terms of being a medium of education. This means that although the Internet is a medium of learning for young people with lower levels of formal education, its perception as such is frequently unconscious. They use the Internet less frequently for school, training or studies and are also less likely to source information on politics and society, but they do exploit the opportunities of a digitised service-providing society and hence practice importance modes of social participation. This leads to the acquisition of skills and aptitudes, even if the Internet is then mainly a tool of communication and entertainment. And if nothing else, self-evidence and self-assurance in handling the net serve to strengthen trust in a digitised service-providing society. These are important and beneficial conditions for securing a future that embraces social participation.

Internet activities – Education

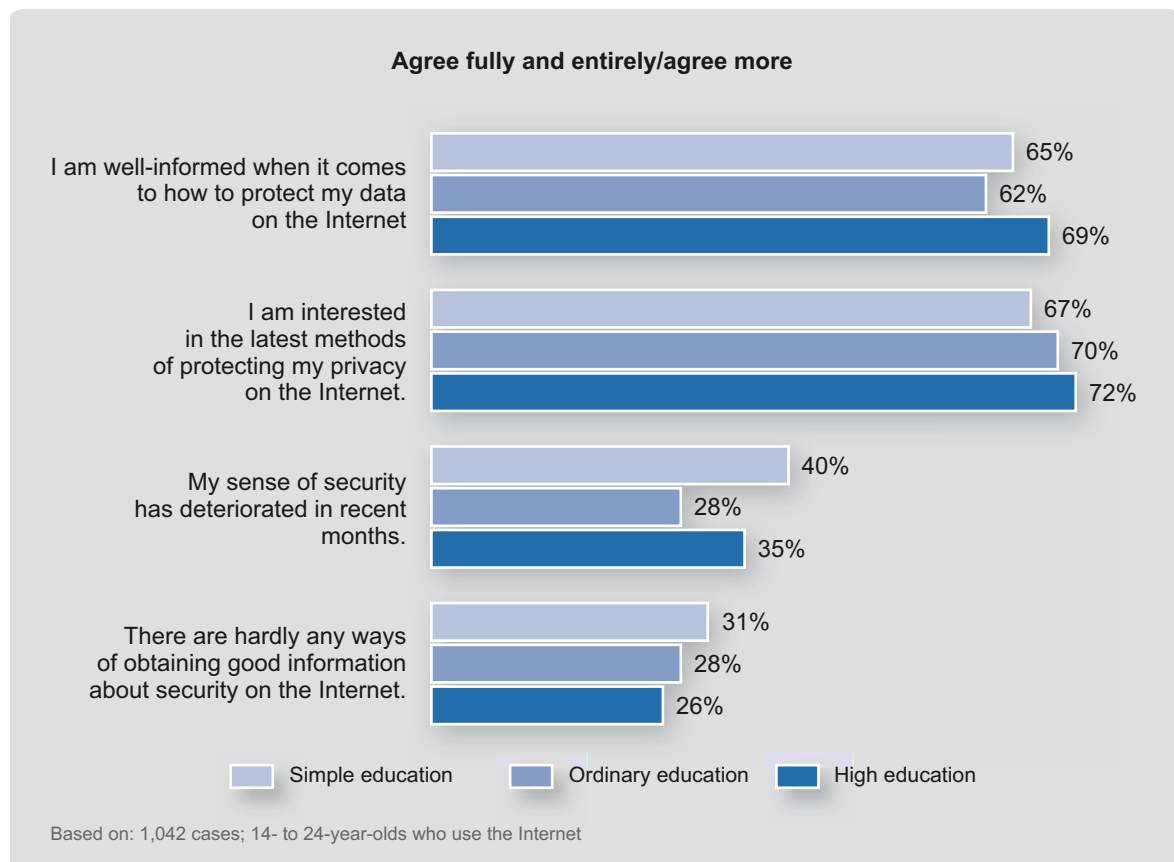


Relevance of online offerings – Education



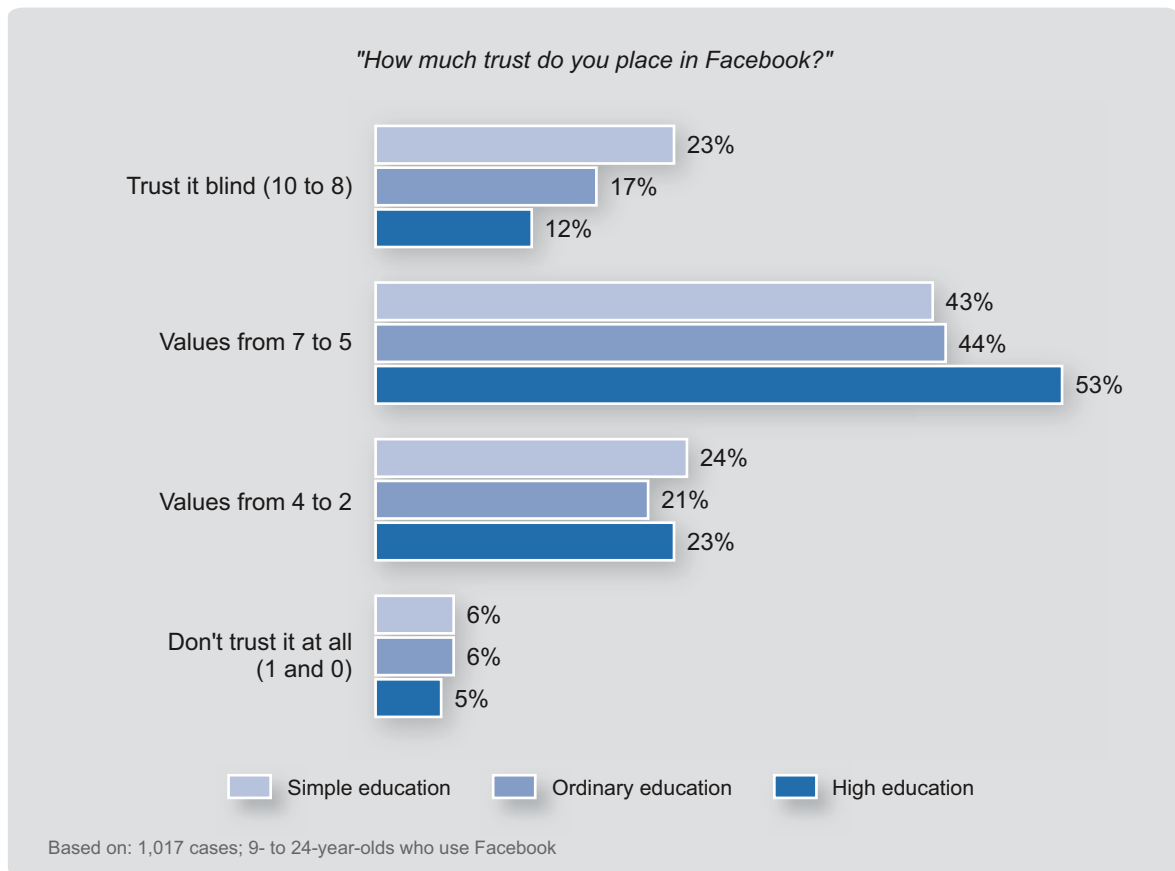
Differences in education are also manifest when it comes to attitudes towards the topic of Internet security. Adolescents and young adults with moderate levels of formal education perceive themselves as less well-informed when it comes to security on the Internet. Interest in comprehensive options of protecting personal privacy drops in line with the levels of formal education, heightening an ever more frequent sense that there are insufficient opportunities to acquire information concerning the topic of security on the Internet.

Education and the perception of security

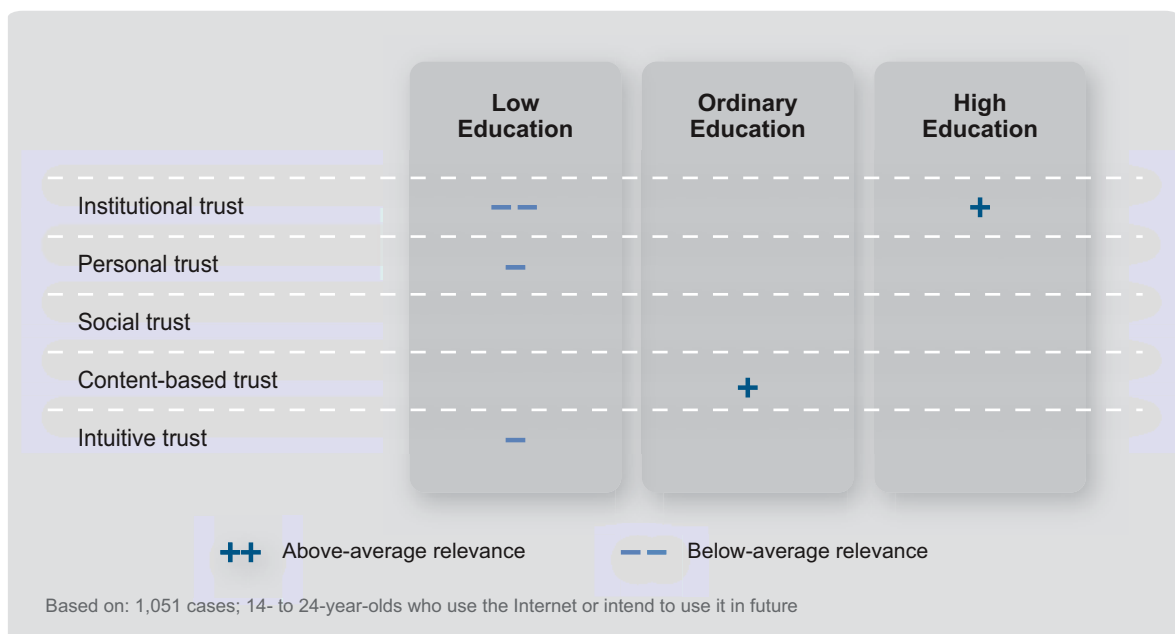


These differences in security profile go hand in hand with corresponding differences in the respective concepts of trust. It is not merely that those with less formal education display greater trust in commercial providers. At the same time the adolescents and young adults have a characteristically negative attitude towards institutional trust (meaning trust in information provided by consumer advice centres, agencies and authorities, advice from the police, tips on the news and in specialist magazines or expert opinions on the Internet). State and independent institutions are required to gradually earn the at times 'blind' trust that children, adolescents and young adults with lower levels of formal education show towards commercial providers. It appears fair to assume that in this case the lifeworld experiences beyond the online world are transferred and that mistrust, a sense of disenfranchisement and scepticism towards institutional authorities prove pervasive.

Education and trust – Facebook



Education and trust concepts



Reading example:

Adolescents and young adults with low levels of formal education show a substandard degree of institutional trust. Those with higher education display greater institutional trust.

6.2 Gender

No digital chasms between the genders, but clear differences in the perception of risk and security

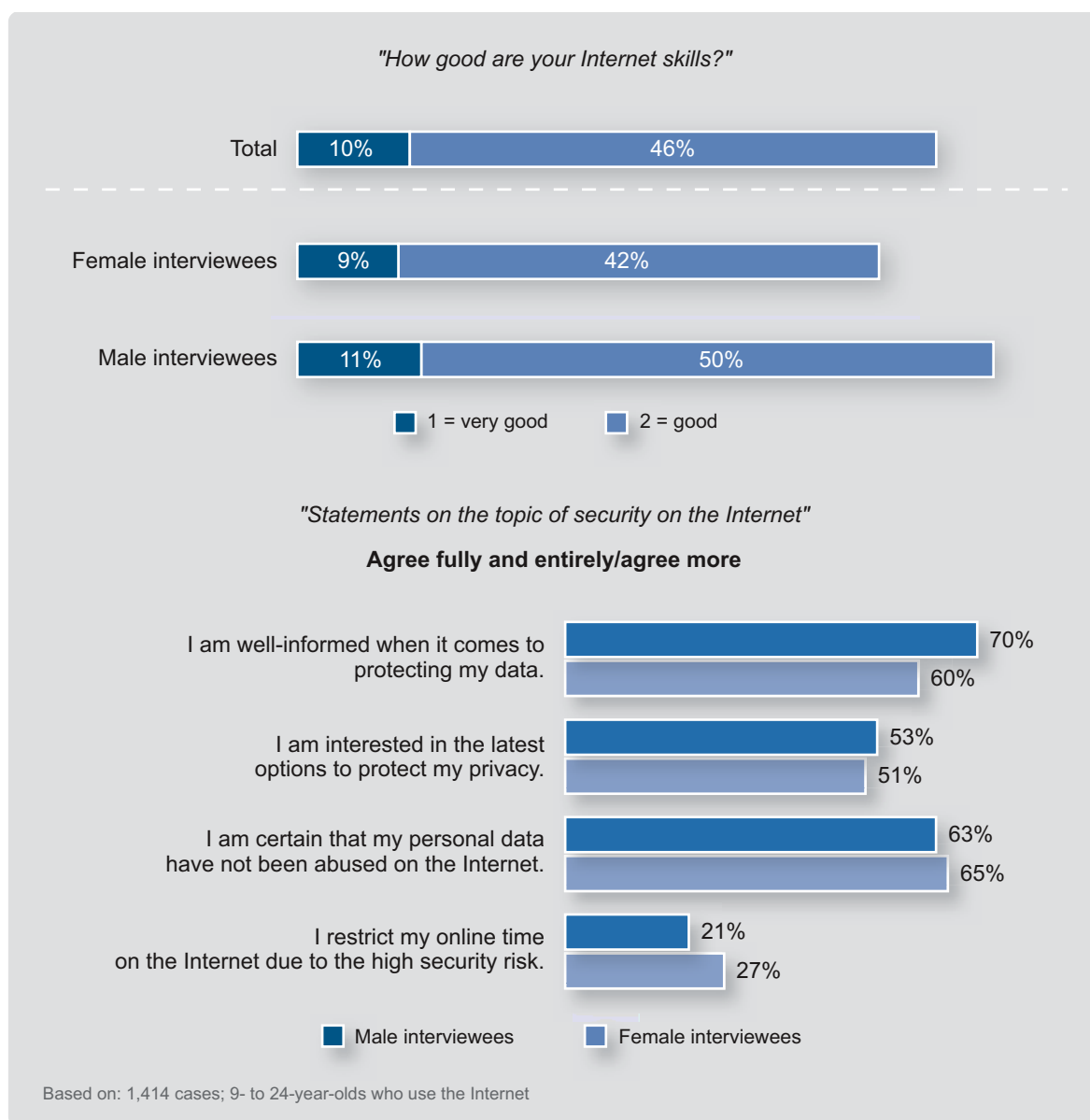
Besides education, gender may also be a possible factor of inequality with regard to social participation and also participation on the net. While *offliners* or *Digital Outsiders* were more frequently expected to be female just a few years ago⁴⁵, it is clear that this chasm has long since been bridged among children, adolescents and young adults. Now there is no indication that the female interviewees lag behind their male peers in any respect when it comes to using the Internet. If we disregard the fact that male adolescents and young adults are more frequent users of online gaming than their female counterparts, there are substantially more similarities between the two genders than there are disparities. But differences in the subjective perception of personal Internet skills and the appreciation of risks and security on the Internet do come to the fore.

The subjective difference in competence that in terms of the educational distinction manifests itself to the detriment of those with a lower level of education can also be observed between male and female users – in this case to the detriment of the female users. Girls, female adolescents and young women trust themselves on the net to a lesser extent than their male peers. However this does not mean that female users are generally insecure when it comes to using the Internet. But it does indicate that among the female interviewees with lower levels of formal education, the factors of inequality may prove mutually aggravating: girls, female adolescents and young women are less well-informed when it comes to the possibilities of data protection on the Internet and are less interested in the opportunities they have to protect their own privacy and, compared with boys, male adolescents and young men, are more prone to restricting their online time in response to the risks that they perceive.

⁴⁵ See also in this respect the milieu of Digital Outsiders, identified in the DIVSI Milieu Study 2012, and which in each case group includes 62 per cent females. Cf. German Institute for Trust and Security on the Internet 2012: DIVSI Milieu Study 2012. p. 127 and p. 143

Cf. also Gerhards/Mende 2009: Offliners: Ab 60-jährige Frauen bilden die Kerngruppe. Results of the ARD/ZDF Offline Study 2009. Frankfurt/Main. p. 366

Internet skills and perceptions of security



The top 10 risks as seen by the male and female adolescents and young adults differ not only in terms of content, but also with regard to their relevancy. Although male and female interviewees equally list infection with malware, disclosure of personal data to third parties, spying on personal data and harassment in the form of spam mails as the top 4 risks, the female interviewees have a somewhat keener appreciation of the risks themselves. Further, female adolescents and young women rate insults and harassment on the Internet, bullying and stalking higher up the scale of risks than the male interviewees.

Viewed overall, however, the risk of actually encountering these factors is quite insubstantial. But it is not without good cause that viruses are classified as the greatest risk. Here is where actual incidents are at their most frequent. Male adolescents and young men are affected more frequently than female adolescents and young women. A prior qualitative study plainly demonstrated that ado-

lescents and young adults primarily consider viruses as a 'boys' problem'. This assessment is tied in with the perception – and in some cases with the real experience – that malware infects personal computers particularly in association with visiting pornographic or erotic websites and also with online gaming.

The top 10 Internet risks

Male adolescents and young men

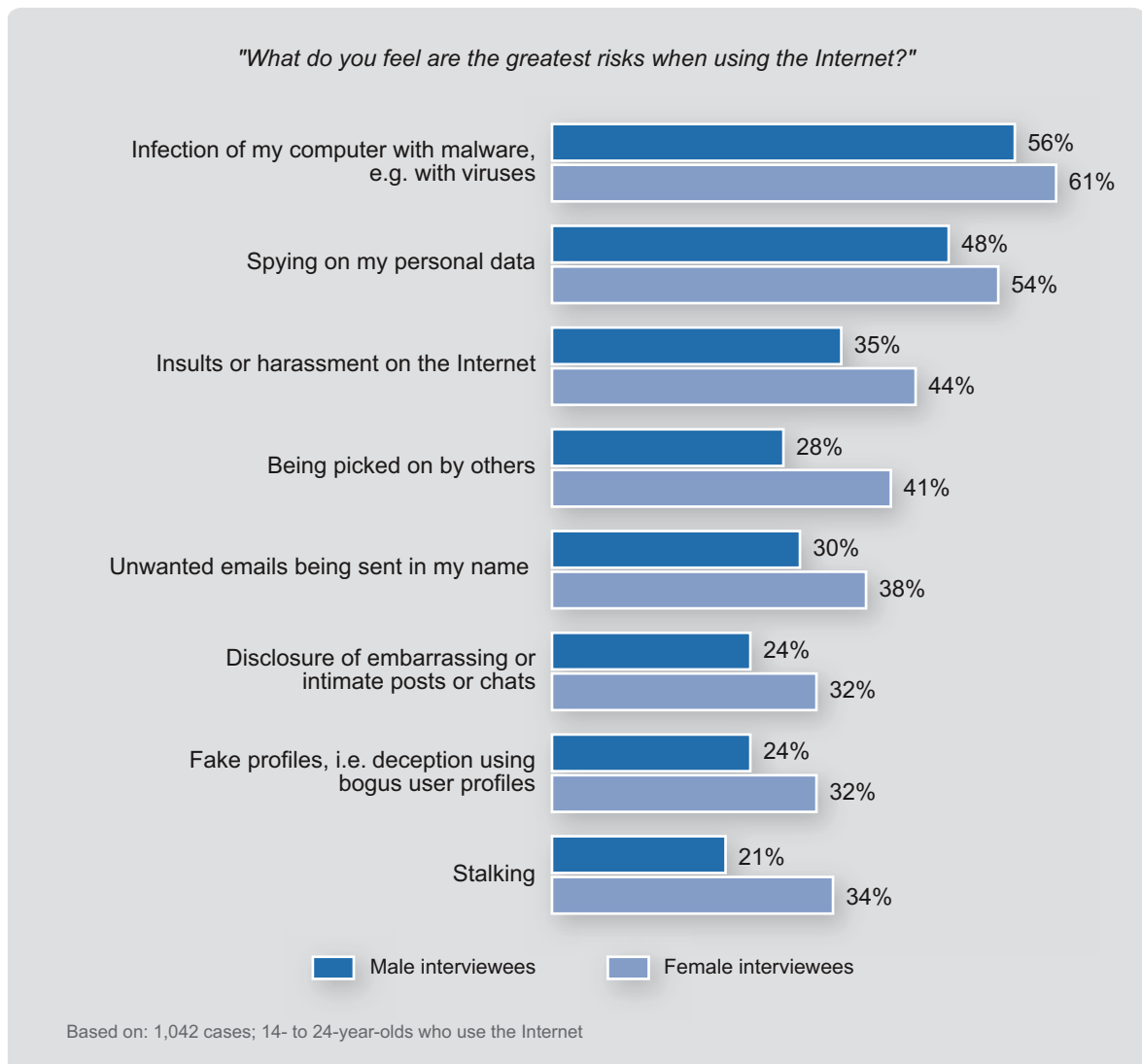
1	Infection of my computer with malware	56%
2	Unwanted disclosure of my personal data to third parties	49%
3	Spying on my personal data	48%
4	Harassment due to unwanted emails (spam mails)	42%
5	Fraud in shopping online or online auctions	40%
6	Use of my data for advertising purposes	36%
7	Insults or harassment on the Internet	35%
8	Fraud in online banking	34%
9	Unwanted emails being sent in my name	30%
10	Getting picked on by others (bullying)	28%

Female adolescents and young women

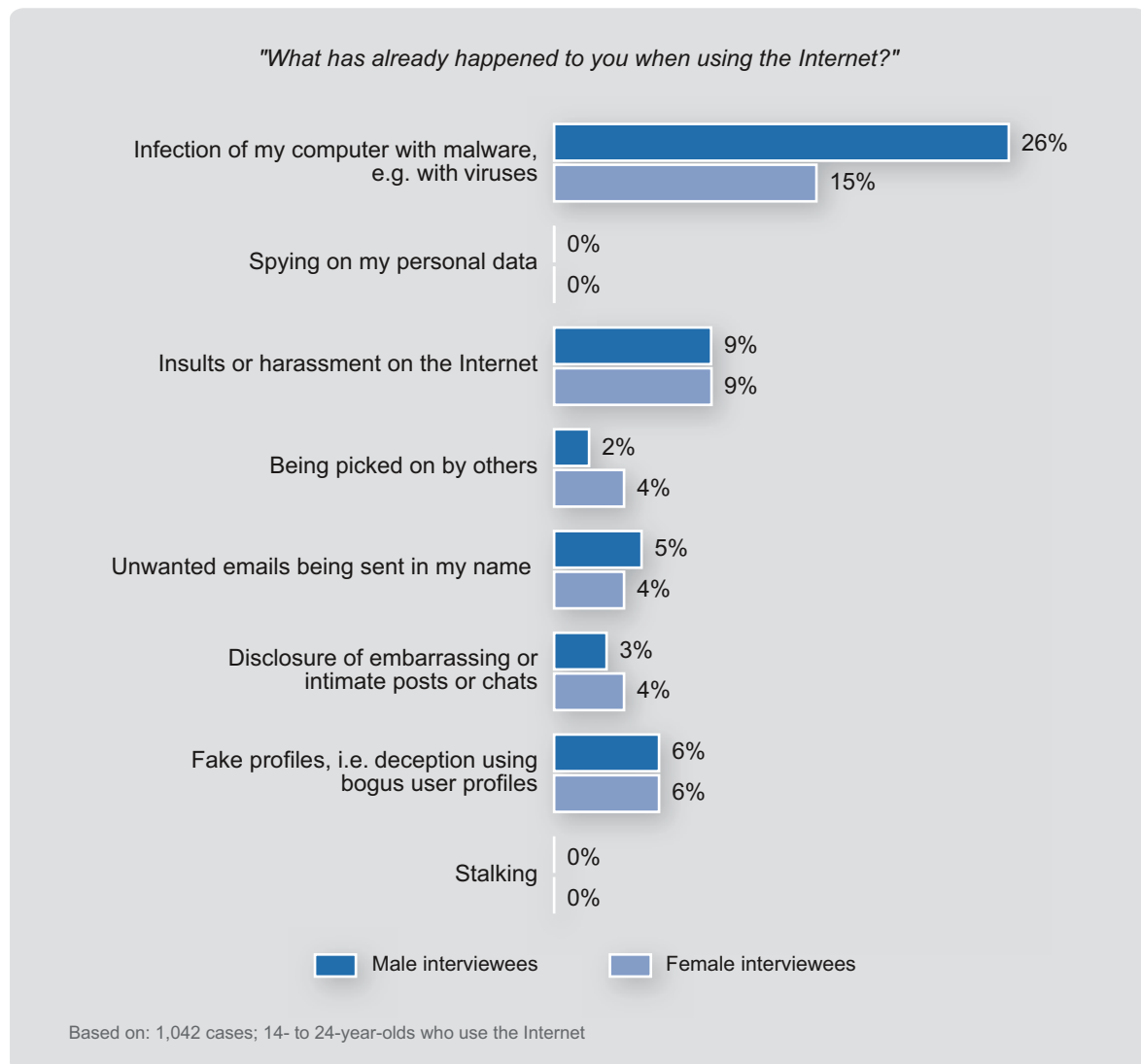
1	Infection of my computer with malware	61%
2	Unwanted disclosure of my personal data to third parties	55%
3	Spying on my personal data	54%
4	Harassment due to unwanted emails (spam mails)	51%
5	Insults or harassment on the Internet	44%
6	Getting picked on by others (bullying)	41%
7	Fraud in shopping online or an online auction	39%
8	Unwanted emails being sent in my name	38%
9	Use of my data for advertising purposes	36%
10	Stalking	34%

Based on: 1,042 cases; 14- to 24-year-olds who use the Internet

Perceptions of risk when using the Internet



Negative experiences during Internet use



7. 'Hot and not' in what young people important in online communication

7.1 The bloated myth of friendships

Friends hold a very special place in the lives of children, adolescents and young adults. It is in their company that they spend a large proportion of everyday life, sharing experiences and discussing concerns. In the daily routines of 9- to 24-year-olds, many thoughts revolve around how friends are faring, what they are up to and – increasingly also – where they might happen to be. The results plainly indicate that the understanding of what constitutes a good friendship has not changed. It still revolves around shared values, opinions and interests, as well as the security that comes of relying on each other.

But the communicative infrastructure of friendships has changed nevertheless, as evidenced above all in new forms of, and meeting points for, communication. Nowadays young people have a dazzling array of opportunities to make and maintain. This can take place both online and offline. And in this the online communities have become self-evident networking platforms. What once was the bus shelter or the youth club has now been joined by status reports and posts on Facebook and co. 69 per cent of adolescents and 74 per cent of young adults are active on Facebook at least three times a week; and 26 per cent of children already act likewise. Only 20 per cent of adolescents and 15 per cent of young adults do not have a Facebook account.

This resource yields new options for contacts and encounters, but equally poses new challenges. It has become a matter of particular concern to consider carefully what one says on which channel, with whom one enters into 'real' friendships and with whom one remains 'just' friends on Facebook.

Almost all interviewees concur that when 'friends' are added or deleted in online communities, one could only speak earnestly of a special category of friends – so-called 'Facebook friends'. Facebook friends have a separate status and most commonly few points of intersection with what truly constitutes a friend in everyday life; frequently they are mere acquaintances. Hence online communities are melting pots for potential friends, a resource to draw on as required. It follows therefore that they do not truly reflect current friendships; instead and more commonly they are potential contacts with a prospective function. Individual contacts may at some point acquire greater importance, and the desire is there to find them if the occasion arises. This is perceived as the decisive benefit of online communities. 77 per cent of all interviewees state that the online communities they frequent facilitate the process of remaining in contact.

Hence it is necessary to accept clear hierarchies of friends, indicated along the lines of intensity of communication and the assessment of the relationship as a whole. Unlike children, adolescents and young adults possess particularly intricate online networks and even make distinctions according to different categories of friends on Facebook. The all-important factor in this is how active the contact and communication via the chosen medium becomes.

"What do you mean by friends? People you chat with on Facebook, or friends? Cause look, you've always got over 100 friends. What it comes down to is what I do, and who I do it with." (aged 14-17, f)

"Well I only add people I've met somewhere or other. Maybe just acquaintances of friends, somehow. But not some complete stranger. I don't add them." (aged 18-24, f)

So the interviewees perceive a crucial difference between adding a friend and entering into friendship. This thus exposes the flagrant generalisation of popular myths revolving around how young people have lost the ability to recognise the value of true friendship.

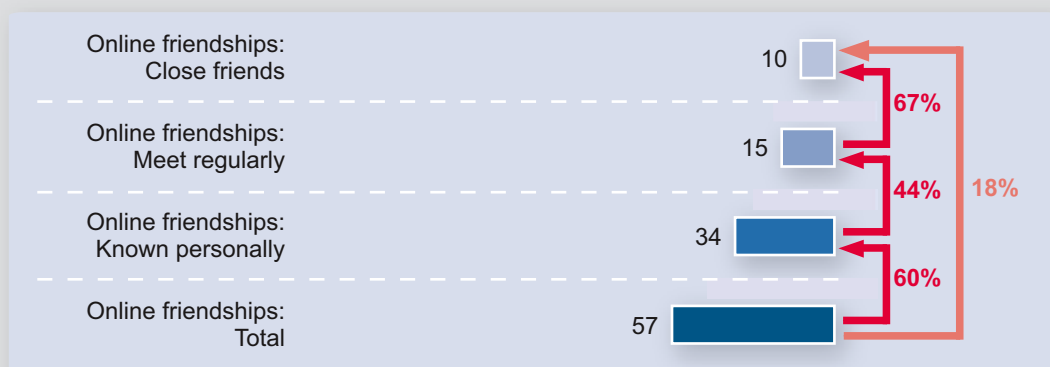
The following diagram elucidates the distinction described when it comes to circles of friends. It shows the average number of friends for, and the successive filtering process applied in, each age group. It becomes noticeable that the number of close friends remains constant across all age groups – even though the average number of Facebook friends rises.

Online friendships

"How many friends do you have in the online community you use most?"
"How many of these friends do you know personally?"
"How many of these friends do you meet regularly face to face?"
"How many of these friends would you characterise as genuine, close friends?"

Average values of the responses

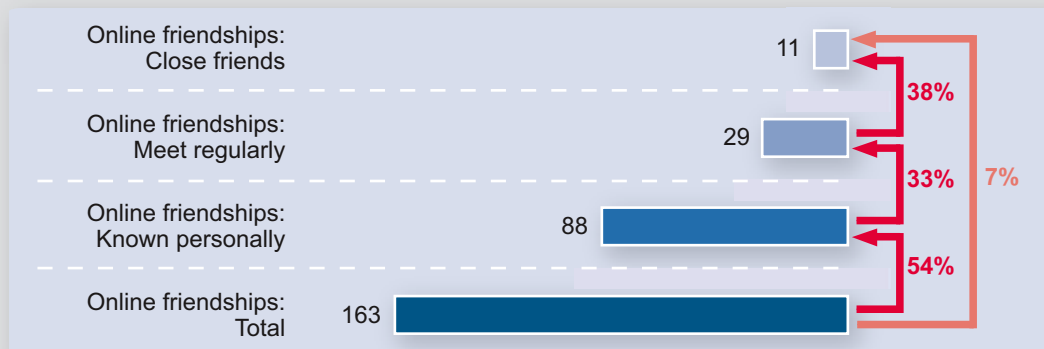
9-13 years old



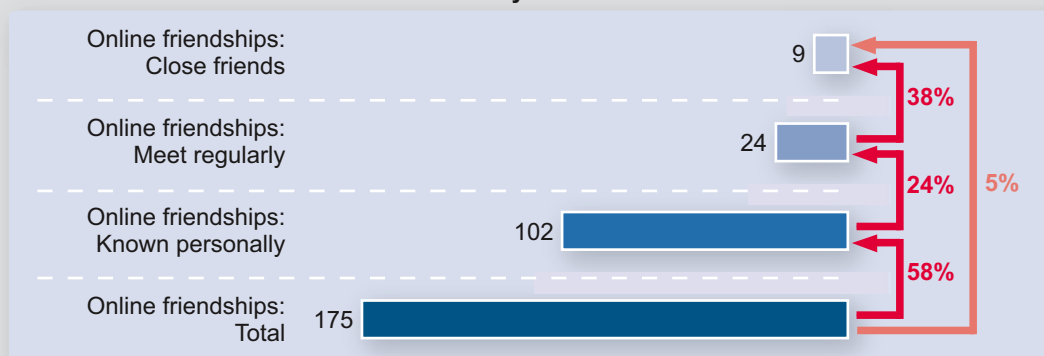
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14-17 years old



18-24 years old



Based on: 1,073 cases; 9- to 24-year-olds who use social networks

But there are differences between young people in terms of the manner in which they maintain online friends – manifest both in age and in lifeworld.

Essentially the significance of friends on the net passes through three age-related phases:

- What children seek in online communities is predominantly to recreate their real circle of friends. Here the term ‘friend’ is most likely to retain its literal meaning. After all, every third personally acquainted online friend is a close friend; among adolescents the ratio is already 1:8, and 1:11 among young adults.
- From the age of around 14 a more proactive policy of networking sets in, accompanied by a demonstrative ‘desire to be found’. And this is where the multidimensional denotation of the term friendship outlined above starts to emerge. For 43 per cent of all interviewees, a predominantly outward presentation that one possesses a large number of friends is an important indicator of popularity in this phase (statement: *“People with a lot of friends on an online community are popular elsewhere too”*); but merely 33 per cent of young adults agree with this sentiment.

- The circle of online friends has transformed into a somewhat calmer network among young adults. Online activities are characterised by moderate and functional networking. The number of Facebook friends tends to grow especially upon entry into new peer groups, e.g. at the start of university. It follows therefore that networks do not grow constantly; more commonly this takes place erratically or episodically.

Other distinctions according to lifeworld also came to the fore, manifest above all in the severity of selection. Some tend to apply a more cautious approach as to who should become a friend, while others *add* indiscriminately along the lines of “anyone who asks is added”. *The Freewheelers* and the *Pragmatists* typically belong to the uncritical *adders*. *The Conscientious*, but as well as the *Cautious* and the *Sceptics*, consider with greater care who should be accepted, and who rejected, as a Facebook friend. This approach is not merely restricted to the digital realm. Instead what we find here are modes of networking that are equally typical of offline behavioural patterns among these groups. They tend to move circumspectly through social environments and check carefully who should receive which piece of information of relevance to themselves.

It is also typical among those who behave reticently in an online setting that they place themselves apart from the purely quantitative approach of ‘collecting friends’ (online and offline) and most specifically on Facebook take a different tack: regular Facebook clear-outs. They report of cleaning up their own networks, reducing them to a manageable number of friends. What lurks behind this is the perception that especially when institutions and companies, not just persons, are among the Facebook friends, or are liked, they end up feeling ‘spammed to the gills’.

“About a year ago I deleted a whole bunch, over 200 or so. I never had anything to do with them. I only knew them because they went to my school. But we never even said hello. Now it’s tidy.” (aged 14-17, f)

“Well I’m friends with some people I don’t even know.” (aged 18-24, m)

vs.

“Anyone can become my friend. Sure, on Facebook. It isn’t friendship anyway. It’s all just this platform where you can contact people and that’s it.” (aged 14-17, m)

“I don’t meet up with 400 people or so, but somehow I do know them.” (aged 14-17, f)

These distinctions are as apparent in the respective U25 Internet milieus as they are across the various levels of education: 54 of the adolescents and young adults with low levels of formal education who were interviewed only accept contact requests from persons they are acquainted with personally, while the same figure for those with moderate formal education is 68 per cent, and 71 per cent for those with higher formal education.

"You've actually got nothing to do with them, the people who are your Friends on Facebook and stuff. Actually all you've got are the, what do I know, 50 people or so you chat with. Apart from that you've got nothing to do with the others." (aged 14-17, m)

"Well I wouldn't say to someone I'm friends with on Facebook that we're real friends or anything." (aged 14-17, f)

"A friend on Facebook is a long way off a real friend or so. It's just that really...and the requests from people you've actually got nothing to do with, but just because you're at the same school." And that kind of stuff I wouldn't call real friends." (aged 14-17, f)

"Perhaps I would call it an acquaintance or so, but sometimes really loose acquaintances where you've got nothing much to do with each other." (aged 14-17, f)

"A while back I really went and deleted a whole bunch of them, kept just 80 friends or so. Really just family and a few girlfriends. It's just...Facebook is really so that I can get in touch, stay in touch, with my family back in Tunisia, because they don't have WhatsApp or stuff." (aged 18-24, f)

7.2 A new appreciation of privacy?

The topic of privacy holds particular importance for almost all children, adolescents and young adults – especially when it comes to an online context in which most of them spend a substantial portion of their day. But first it is necessary to understand what precise perception of privacy the younger generation holds and then to model this concept based on qualitative and quantitative survey results. Resorting to a pre-existing definition of privacy would come up short if it were used in a quantitative analysis of relevancy for children, adolescents and young adults.

The findings show that the different age groups differ substantially in their understanding of what privacy truly means.

Children approach this topic ex negative, meaning that privacy becomes relevant when it is not respected. They mention a wide variety of dangerous situations that could arise following overzealous disclosure of private information on a given person. What they speak of are Internet risks that in recent years received more widespread media circulation and were thereafter transmitted to formidable effect by parents, teachers and other persons of reference. For instance they mention the fear of burglaries or violent attacks as a consequence of negligent management of personal data or making contact with strangers. They are particularly suspicious of online offerings that require disclosure of this kind of personal data, for instance online communities or shopping portals. Further, children are fearful of 'never being able to delete' data published on the Internet, that the Internet 'never forgets', and so they maintain: "Once online, forever online".

Adolescents primarily perceive privacy to mean all those things that may be considered intimate or embarrassing, so information about one's relationships and discussions about feelings like concerns, fears or crushes. This information is highly sensitive and any circulation on the net comes with substantial risks – so quite naturally adolescents have great fear of personal injury due to the involuntary dissemination of this kind of information. General personal data, e.g. date of birth, place of residence or school, are considered less problematic. There is great confusion as to what could make these data so putatively valuable.

"Yes, stuff like when you're lovesick or you've got stress with your friends. I mean I do think that 'cause of the risk of getting hacked on the Internet it really sucks if you talk about important things like that...or if you're an adult and you let on about tax stuff. I mean that kind of thing you really need to talk about for real because on the Internet it's there in black and white. And if you get hacked by someone and they find out about it, well, that isn't very cool." (aged 14-17, f)

"Well, if you've got stress or stuff, I wouldn't go out and post it. Or if they smoke weed at my age or stuff and then sometimes post things like that, I wouldn't do it. Cause when you've got a job later on they might find out." (aged 14-17, f)

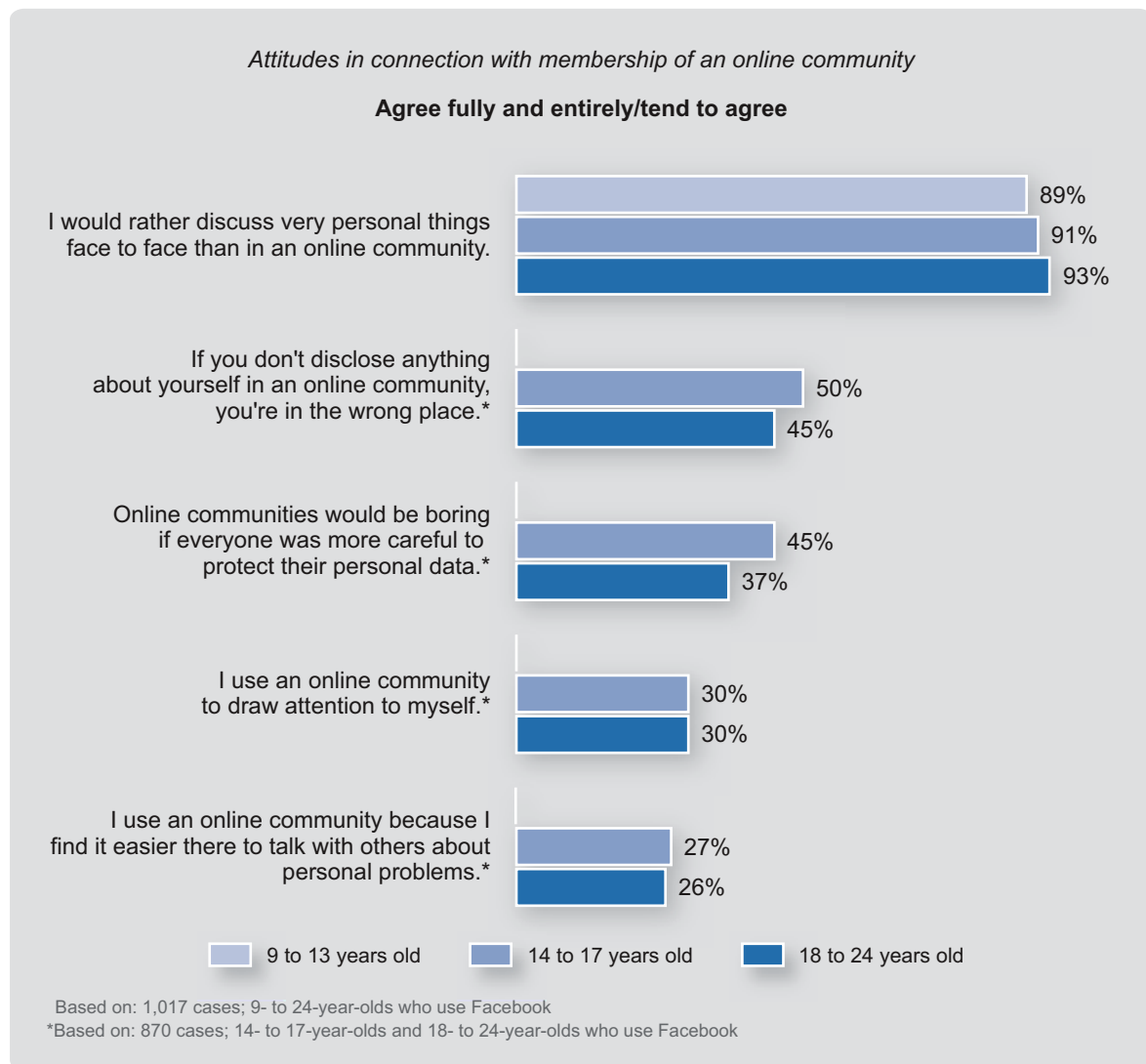
The necessity of online communication becomes increasingly essential for young adults; a life without the online network, maintained over years, is not an option. The thematic field of 'intimate and embarrassing' gradually loses relevance over the course of development into young adults, and the handling of one's own private information becomes a continuous, pragmatic weighing up of costs and benefits. What information is necessary to signalise to a circle of acquaintances what is happening in one's own life? What kind of information is too much and could represent an annoyance? And so an ever more efficient information management system emerges parallel to the increasing compression of everyday life that goes hand in hand with new tasks and altered situations (training, work, studies, new residence, etc.). Knowing what information is relevant when and for whom is deemed a core competency of online behaviour. The rules for personal information policies are unwritten laws that young adults view as self-evidences and therefore cultivate rhetorically: (*"I think it's stupid of some people"; "You've always got the boneheads who....."; "If you're that stupid that you..."*).

The guiding principle is to maintain a measure of privacy in the online world and to disclose only enough information to guarantee the following:

- you know what others know about you (knowledge of one's own privacy settings)
- that you effectively disseminate what you intend others to know (scatter of relevant information titbits to suitable multipliers)
- that you missing out on what you wish to know about others (acquiring the relevant personal information pertaining to important contacts)

The following diagram elucidates the differentiated consideration of what may be acceptable on the net and where the corresponding boundaries may lie. Explicitly private information has no place in online chats. But nevertheless a certain measure of informational largess is necessary, because otherwise any form of exchange is rendered impossible and an online community would be boring.

Privacy and online communities



Children, adolescents and young adults are most commonly loathe to conduct online conversations on subjects seen as particularly intimate (about relationships, feelings, fears) or that contain serious topics (crimes, conflicts and disputes).

"I think it's really stupid of some people if they have some kind of stress in their relationship that they write these mega-long texts and everyone can read it. And then they write, yeah, but we don't need to sort this out on Facebook! But by then everyone's read it. Things like that I would only sort out face to face." (aged 14-17, f)

"Yes, stuff like when you're lovesick or you've got stress with your friends. I think [...] stuff like that you need to talk about for real, because on the Internet it's there in black and white. And if you get hacked by someone they find out about it." (aged 14-17, f)

"What I think is sensible about Facebook is, it's that you can invite friends all together, for example to a party or stuff. And you know you use it to make arrangements perhaps, but sorting out your problems there I think is just totally brain dead. Above all because you can be afraid [...] that maybe it'll be spread all over the Internet." (aged 18-24, m)

The content of online communication is more important than personal data

Attitudes concerning topics of privacy on the net are one side of the coin; but what kind of information about themselves are young people actually prepared to disclose in online communities?

For children, protecting personal privacy on the Internet predominantly means disclosing little information on the net. They display profound sensitivity when it comes to cautious handling of personal data, whereby personal data in this age group especially are among the information that merit protection. In particular they avoid disclosing their address, real first and last names and publication of photographs with a frontal view of their faces. What prompts this prudence is above all the fear of physical attack or stalking – things located in the outside world beyond the Internet. Only gradually do children develop an awareness of data abuse on the Internet or a commercial exploitation of personal information. Further, parents frequently look after their privacy and security settings, for instance in online communities. So this topic remains subordinate in the eyes of children. The primary association among adolescents and young adults when it comes to the key word 'privacy' on the Internet is privacy settings in online communities – in particular settings on Facebook. So their thoughts mainly turn to technical options that can be activated or deactivated. In consequence they can even 'switch off their personal privacy'.

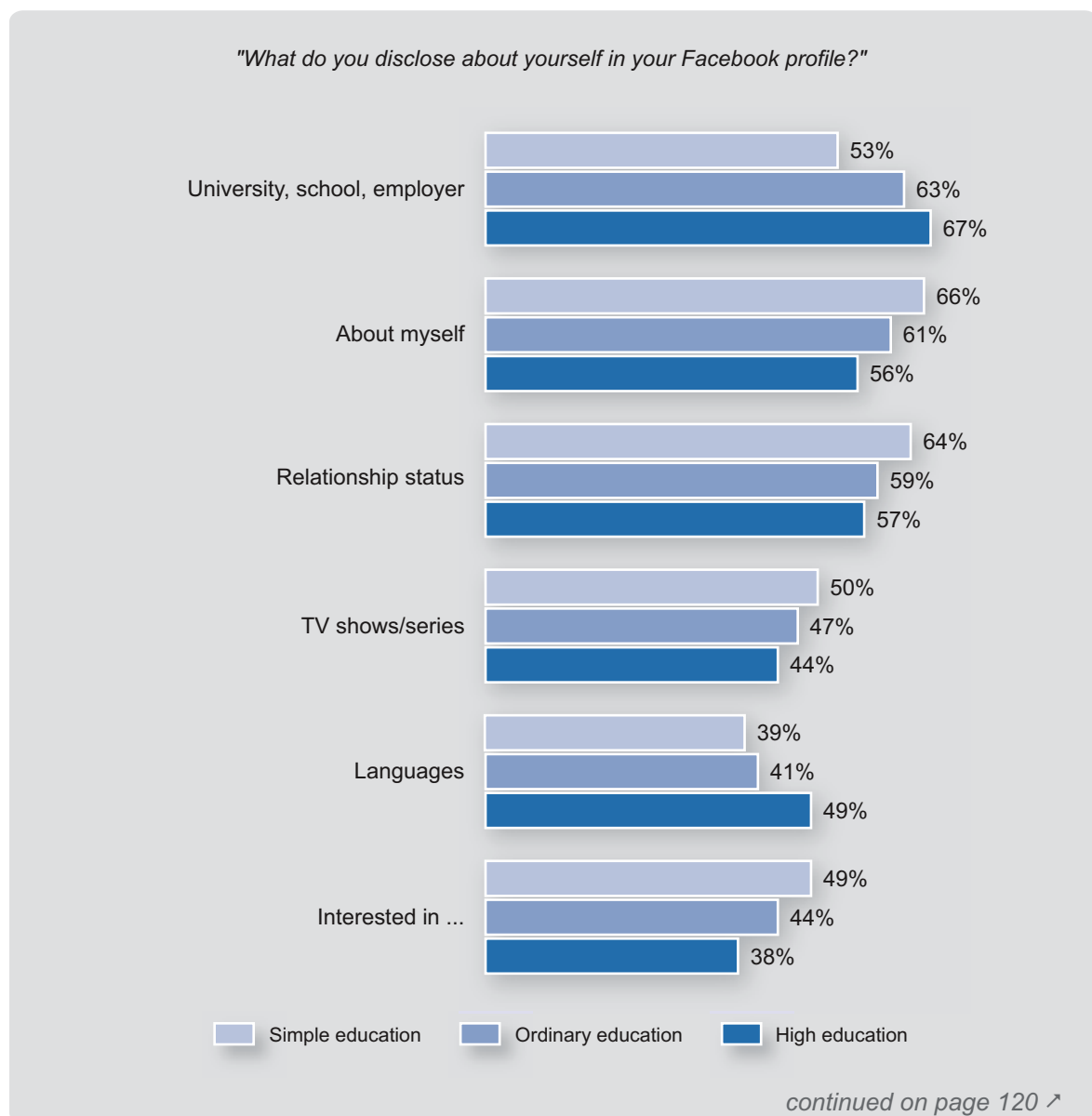
"The only setting I defined was that people I'm not friends with can't look at the photos I post to the wall. Because, I don't know, I don't mean it badly but I don't know them and they don't really have to read what other people write under my photos because otherwise they know more about me then. It's important to me that strangers can't just...yes." (aged 14-17, f)

"Well for me it's totally important that I'm private...well that only my friends for example can see the stuff. Some people have set it so that everyone can see it. But I don't like that. I think it's nobody's business what I post or stuff if I don't know them." (aged 18-24, f)

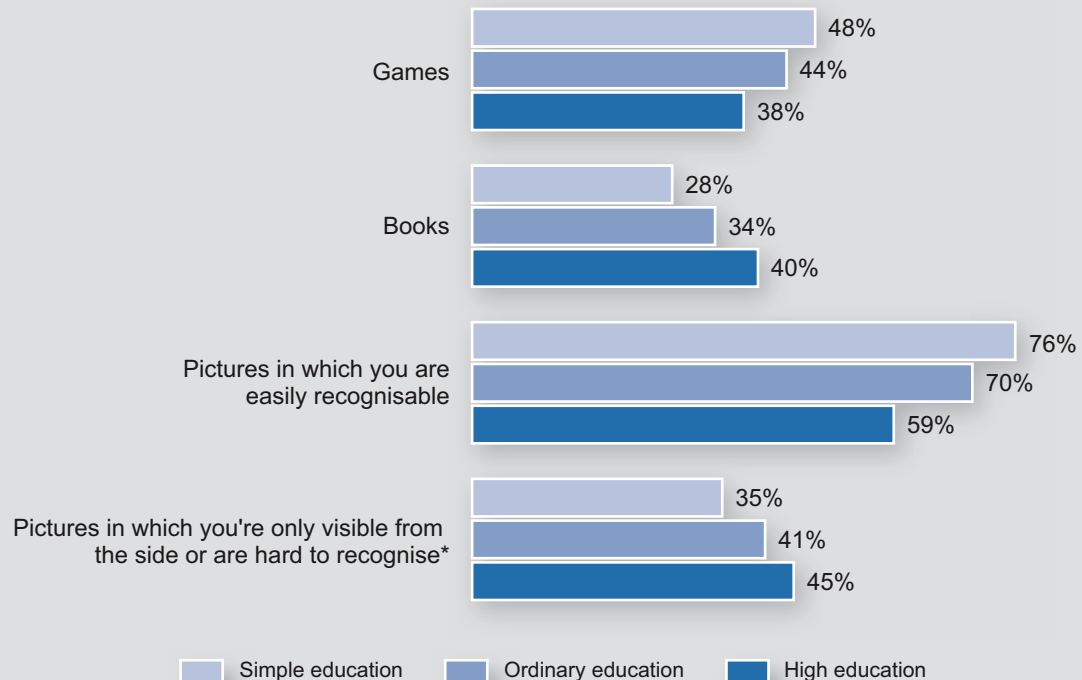
A distinction is made between the disclosure of personal data such as name, age, residence and the visibility of content (posts, tags). Adolescents and young adults, as mentioned before, do not feel that the former group of personal data merits any particular protection. In contrast, almost all limit access to posts, photos and their personal history. Mostly these contents are only visible to friends and/or friends of friends. Indeed, by no means all adolescents and young adults upload any pictures at all.

There are also differences in the form of content: children, adolescents and young adults with low levels of formal education are more likely to provide information on relationship status, favourite TV shows and computer games; those with higher formal education disclose school/university, languages and books.

Personal data on Facebook



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Based on: 1,017 cases; 9- to 24-year-olds who use Facebook

*Based on: 146 cases; 9- to 13-year-olds who use Facebook

And even if this produces a differentiated impression, adolescents and young adults in particular emphasise in the qualitative discussions that in the question of personal privacy, the disclosure of formal data (who knows my birthday or favourite film) is far less important than the content of online communication. What one says and to whom merits particular protection. The overriding fear is that conversations conducted with (close) friends online are made public (e.g. using screenshots, meaning snapshots of the screen to reproduce chats, which are then disseminated in bulk). Keeping secret the content of conversations that adolescents or young adults conduct with friends – whether online or offline – is in their eyes, what protecting personal privacy truly means. And by measure of this definition they also specify what should not be discussed online, prompted either by the feeling that a media-based communication situation would not do justice to the occasion or because there is an imminent risk that the content may become public.

And when adolescents and young adults speak of public they do not mean any possible monitoring by the state, a data capture and collection by corporations or other institutional storage procedures: what they mean primarily is their peer group and hence their own reputation within the network.

The fact that in terms of protecting personal privacy, adolescents and young adults display a somewhat carefree attitude when it comes to the disclosure of purely factual personal data is also revealed in the practical absence of reservations expressed towards personalised advertising. Although largely aware that companies track the online activities of users and exploit the data for offerings to specific target groups, very few of them see in this any reason for undue concern. Quite the contrary. They perceive benefits. It became apparent when the qualitative survey turned to the example of personalised advertising that many adolescents and young adults adopt a pragmatic attitude to the commercial exploitation of their personal data alongside their user data and profiles. Above all they see the practical benefit of personalised advertising. Merely two U25 Internet milieus voice criticism about personalisation: The *Self-assured* and *Sceptics* show clear opposition.

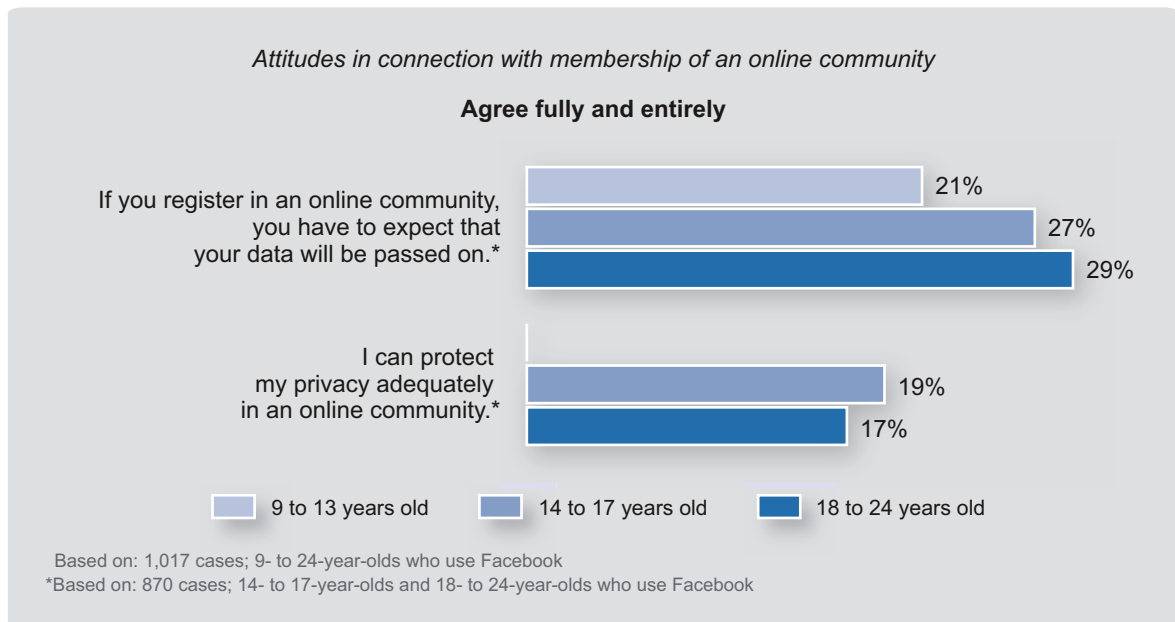
"It's good, I can see it straight off. They sort of shove it right under my nose." (aged 18-24, m)

"I have to say I'm a bit conflicted. Basically it pisses me off [...] But on the other hand I am somehow interested. Let's say I'm looking for something for my bike but I don't really know where to look. Then it is a bit of a help." (aged 18-24, m)

"It does bother me, really does. And so I've got this ad blocker that means I don't really see much of it. Apart from that it really is a pain with the pop-ups and stuff, flashing up like that." (aged 14-17, f)

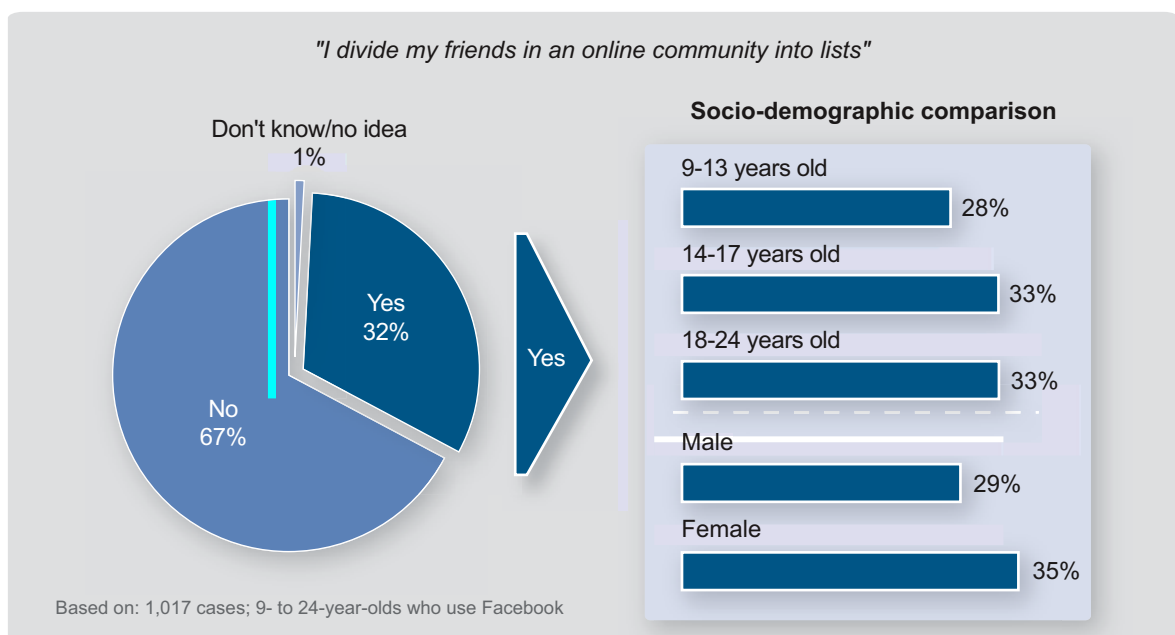
It is fair to say in general that while children preserve a certain caution when it comes to personal privacy topics, adolescents and young adults increasingly view this complex through pragmatic eyes and have, in their everyday lives, made their peace with a form of contradiction: on the one hand they believe that you simply have to expect that your data will be disclosed on the net, but on the other hand believe in their ability to sufficiently protect their own privacy in online communities.

Personal privacy in online communities



The qualitative findings revealed that adolescents and young adults are least likely to check the effectiveness of the privacy settings they define in online communities. But any further appraisal of the means of protection that “*are hidden there somewhere*” barely takes place. In consequence, lists to organise friends and to ‘micromanage’ posts do not find widespread use. And what this means primarily for adolescents and young adults is: protecting one’s privacy on the Internet is laborious – frequently too laborious.

Structuring personal privacy



7.3 When privacy is invaded

Online bullying is worse than offline bullying

Bullying is a pivotal topic for children, adolescents and young adults and is actively introduced to the discussion (*“What astonishes me is that we haven’t talked about bullying yet”*). The interviewees were given the opportunity during the qualitative analysis to describe precisely what they understand to be Internet bullying.

Adolescents and young adults – children also in some cases – vividly emphasise the broad lack of usual inhibition in Internet communication, and that it provides an effervescent breeding ground for opportunities to bully. In this they refer to negatively tinged, frequently blunt communication within their own closer social networks on the Internet and also to a broader, less specific online communication. The latter can be seen as a ‘culture of schadenfreude’ established in online communities far beyond the limits of traditional satire or entertainment and manifesting itself as public exposure, insults or denunciation.

“Really bad! It’s totally evil on the Internet the way people all of a sudden get the nerve to say stuff they’d never say to someone’s face.” (aged 14-17, f)

“I don’t know what to say: you’d think they could barely walk the size of the balls they get the minute they’re online.” (aged 14-17, m)

“I’ve got this guy in my class, the perfect example: he’s so unbelievably shy, but a cheeky little shit on Facebook. And it really gets on your nerves.” (aged 14-17, m)

“You’ve got to see that in chat you have far less sympathy and far fewer scruples than you would have in real life because you can’t see the other person and they can’t see you.” (aged 14-17, f)

The interviewees state that bullying comes in many different guises and is coupled with clear conditions, within which the following aspects are crucial:

- public exposure through dissemination of defamatory image or text material
- public insults and the celebration of these insults, i.e. the culture of *schadenfreude* (important condition for bullying: if you make someone suffer you have to enjoy it)
- persistent insults and harassment, i.e. 'going out of your way to harm someone online' (the younger generation does not perceive one-off or brief phases of insults as bullying)
- identity theft (hacking an online profile) and deliberate injury to a person's online reputation
- deception using a fake⁴⁶ profile

In the eyes of the interviewees the dimensions of mobbing encompass far more than the standard definitions. So the quantitative survey asked after a variety of bullying phenomena. Explicit bullying is understood to mean 'getting it from someone else'. The survey also inquired about 'insults and harassment', 'publication of embarrassing posts or chats', 'fake profiles', i.e. 'deception using fake user profiles', and 'stalking'.

"If you take a look at the like pages you can see they're posting tons of screenshots of chats and stuff or comments, and then they all make fun of some comments [...], for instance the spelling, and that's bullying if you ask me." (aged 18-24, f)

"I know a whole bunch of people who post chats where someone said something personal or some photos that stupid girls sent to some boy. So they get posted publicly and then pretty soon half the town knows what's what." (aged 14-17, f)

"My friend tricked me once. He used the name Julia, and he was a girl. For six months. [...] And I fell in love with her. And then we met up and he was there." (aged 14-17, f)

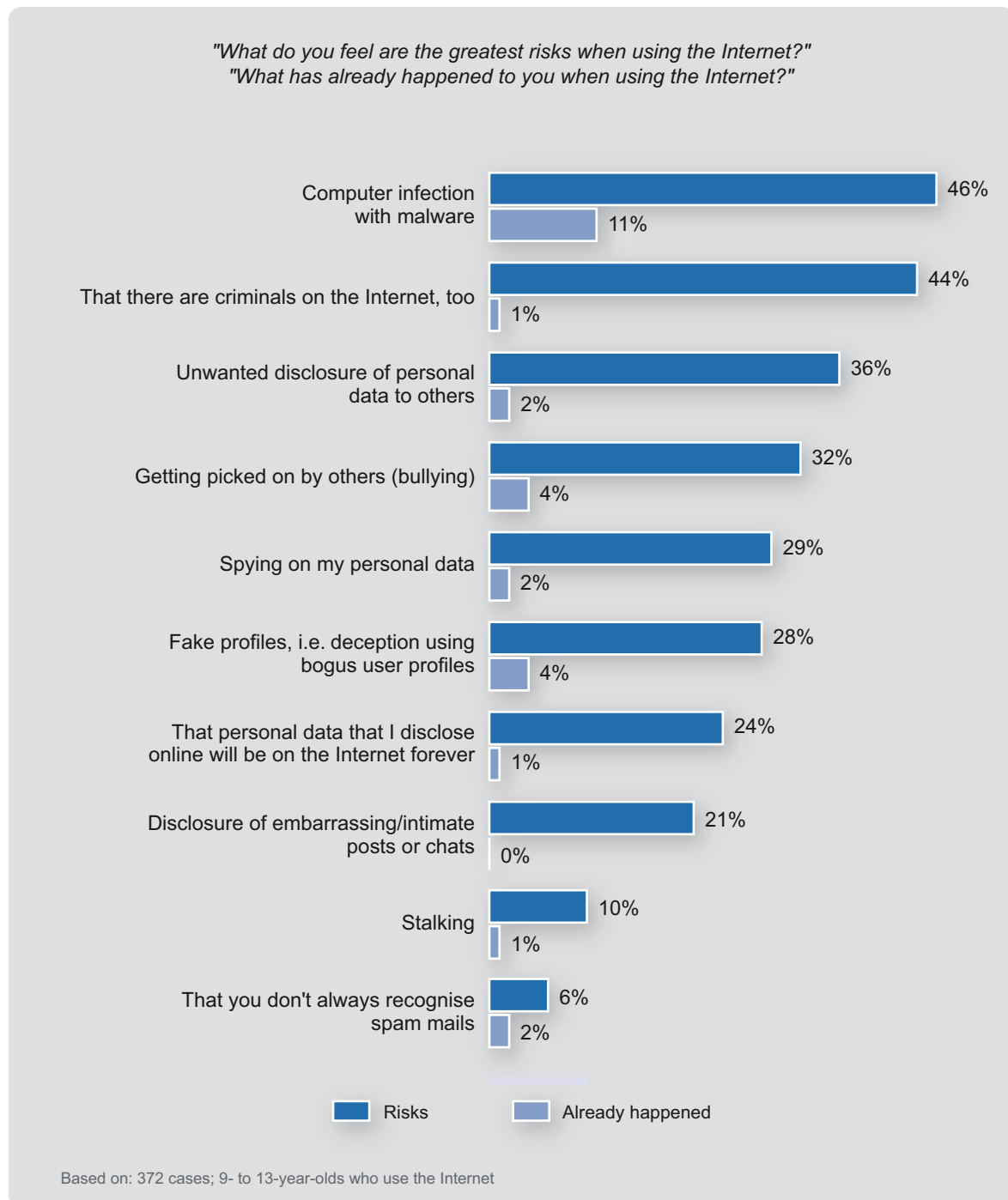
"My ex hacked my account and posted all this crap the whole time." (aged 14-17, f)

"I think that bullying starts when the victim, I'll call them that now, feels hurt. Not like when someone says: 'You looked really shit in what you had on.' Rather when it starts to affect them mentally, that they really feel under attack. And when the person doing the bullying enjoys it." (aged 14-17, f)

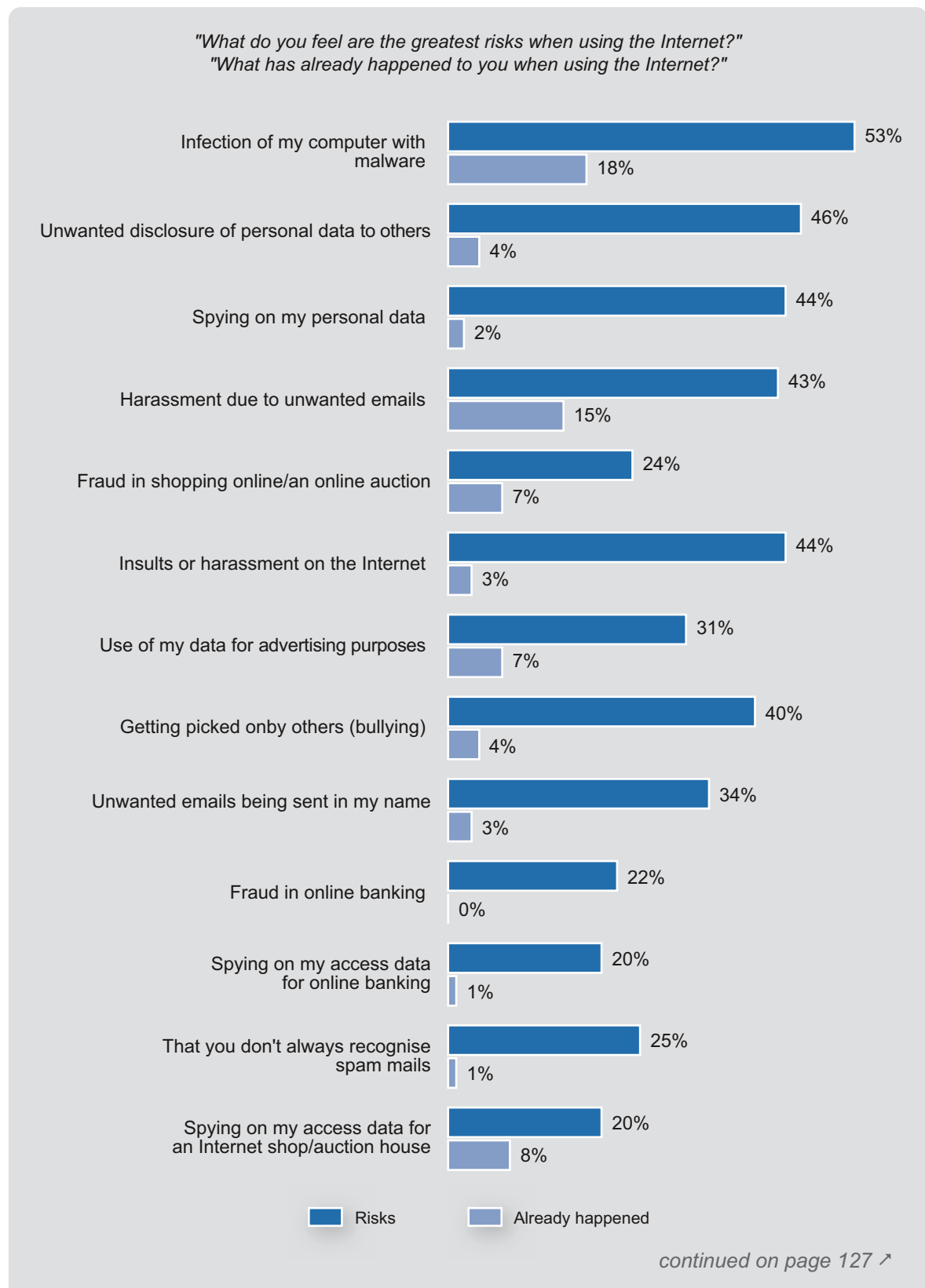
⁴⁶ The practice of creating a fictitious identity.

Placed within a series of risk factors on the Internet, bullying – seen as ‘when others are out to get you’ – is located upper mid-table. And adolescents perceive the risk as more relevant than young adults and children. It follows therefore that the topic of bullying is primarily acute for teenage school-children.

Risks on the Internet – Children



Risks on the Internet – Adolescents



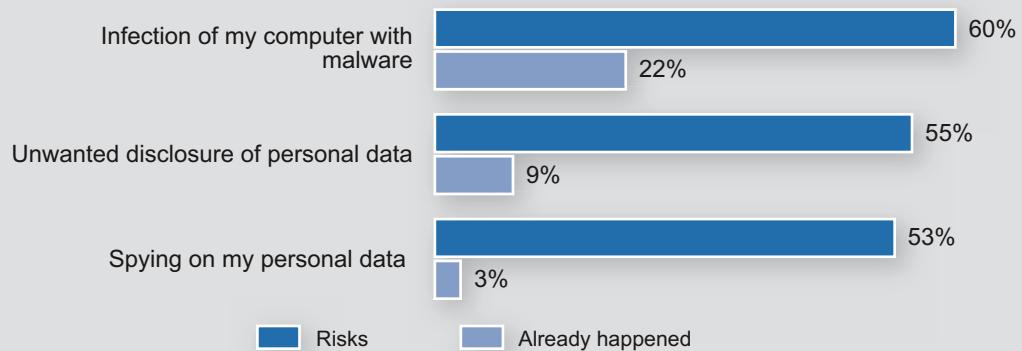
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Based on: 302 cases; 14- to 17-year-olds who use the Internet

Risks on the Internet – Young adults

"What do you feel are the greatest risks when using the Internet?"
 "What has already happened to you when using the Internet?"



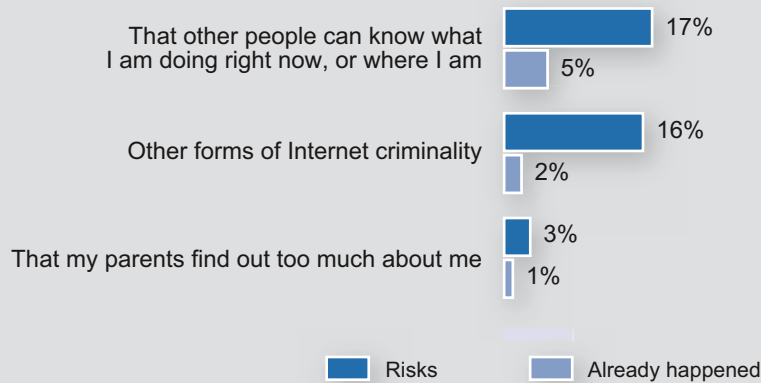
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Based on: 740 cases; 18- to 24-year-olds who use the Internet

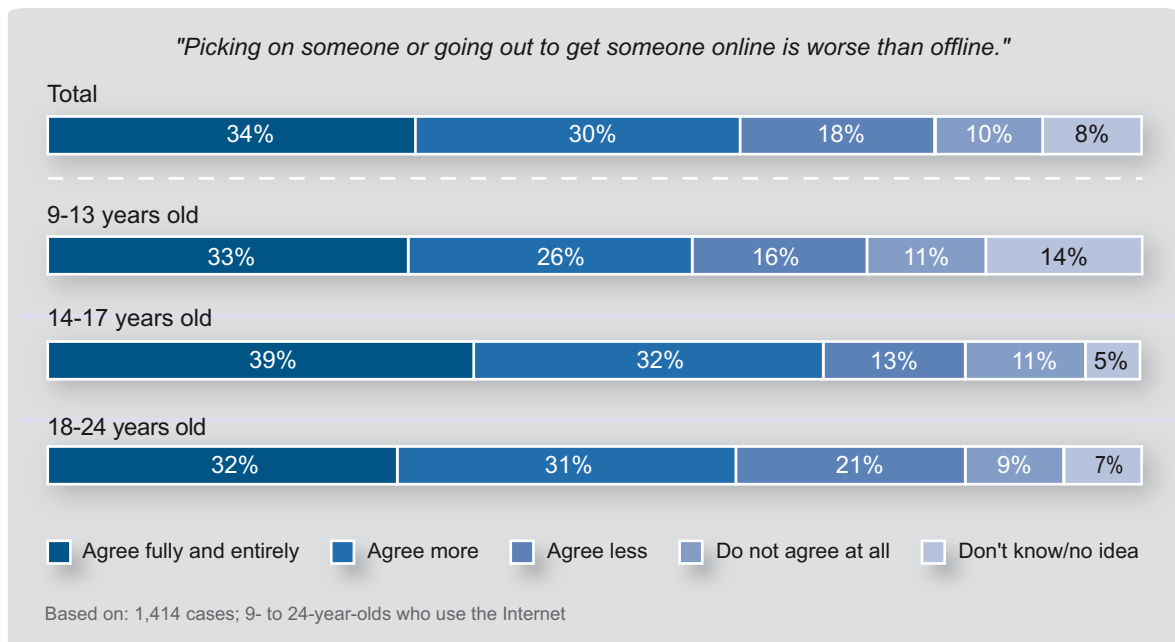
During the qualitative discussions the adolescents were particularly vociferous in emphasising that they find bullying worse when it is online than offline. This is not simply down to the fact that in this age group the phenomenon is apportioned greater significance, but also that the online community in general is more important. 51 per cent of all male and 57 per cent of all female Facebook users are unable to imagine a life without this online community. Hence their only alternative is to adopt a more cautious manner of behaviour. Once exposed to bullying in these public domains there appears to be no avenue of escape. In contrast, the younger children are more able to simply leave the online community as a means of eluding the animosity.

"You have to go to school every day, so you really can't find a way round it unless you go play truant, but then you'll get held back a class, probably. But online you can simply delete your account on the social network. Or you block the people and you can get the police involved for them to find the computer or the laptop and have a word with the person." (aged 9-13, m)

"It's totally evil on the Internet the way people all of a sudden get the nerve to say stuff they'd never say to someone's face. It's even more in your face than on the street somewhere." (aged 14-17, f)

Further, the young adults refer to the wider circulation of animosity, insults and embarrassing exposures. They possess awareness that by sharing the message, through status reports, via friends or by clicking on the 'Like' button, they can exponentially increase the number of observers for this kind of defamation within online networks – and hence exponentially increase the shame the victim will experience. They make scant use of the control options at their disposal and thus help cultivate an environment in which opinions are 'released into the wild'. The feared permanence of documents on the Internet contributes to this assessment. Once online, embarrassing or defamatory images and texts remain there – so the frequently posited opinion at least – retrievable for posterity.

Comparison between online and offline bullying



A noticeable feature of the discussions on bullying among children, adolescents and young adults is how much media knowledge they reveal. At times amused, otherwise alarmed, the younger generation is quick to come round to mutually familiar 'bullying anecdotes' and their inevitable outcomes. Communicated frequently via their parents, the substantial exposure in media discourse is noticeably reflected in the knowledge bases the adolescents and young adults, as well as children, possess.

"This girl once went to a house where there were these boys and she was then totally naked, standing on the bed, dancing, and he filmed her doing it. So there were these pictures. And they posted it on YouTube and all of Hamburg knew about it inside of an hour." (aged 18-24, f)

"But people commit suicide when they feel mobbed. And I read something like that in the newspaper." (aged 18-24, m)

8. Swapping and sharing: Standard practice as an indicator of legality

Film and music content can be located and accessed in large quantities online, without necessarily being paid for. The current legal status concerning content available online is extremely complex. The individual activities involved frequently inhabit so-called 'legal grey areas', i.e. it has not been definitively clarified whether they are legal or illegal and hence potentially punishable.⁴⁷

Without seeking to explain or define the legal foundations of various online activities here as part of this study, it is important nevertheless to draw attention to this occasionally unclear legal situation, as it creates frequent uncertainty among Internet users as to which activities are legal or illegal and hence presents stumbling blocks to establishing any personal standards of daily practice. But given this situation, it is of interest to observe how children, adolescents and young adults deal with the situation and what legal awareness and subsequent strategies of action, if any, they develop.

8.1 Intense use of cultural assets available online

The younger generation takes it for granted that they can access content on the Internet without paying. Children, adolescents and young adults primarily use YouTube to listen to music and to obtain music; they also draw on so-called converters⁴⁸ to download the files for offline consumption. The qualitative findings indicate that converting music videos and saving them on a personal hard drive is standard practice, even among children. An alternative is *streaming*, meaning that the music and films are consumed online. Here the audio and image quality is almost irrelevant. Children aged above eleven mainly use their phones to listen to music; series and films are watched on YouTube, even if they are split into numerous individual sections. What drives them is not having to pay. The following applies to most children, adolescents and young adults: they are willing to spend money on an entire music CD, but not on individual songs that can be listened to on YouTube for free. A physical format (e.g. CD, DVD) is considered more valuable, but not more attractive.

And as the interviewees begin to move through the Internet with greater routine and competence, preferences gradually switch from traditional media services such as television to online entertainment offerings. Selected films that 'have to be' watched in the cinema, above all due to special effects, are the exception here. But the motivation in this case is on an optimised media experience; yet practically none of the interviewees in the qualitative pilot study actively mention the value of intellectual property, and most certainly not as grounds for paying suitable recompense in return for a product.

⁴⁷ Cf. Kreutzer/Weitzmann 2009: Urheberrecht: Video-Nutzung bei YouTube, kino.to und Co. Published by Markus Beckedahl on Netzpolitik.org: <https://netzpolitik.org/2009/urheberrecht-video-nutzung-bei-youtube-kino-to-und-co/>.

⁴⁸ In this case a converter describes a program that enables downloading of individual or multiple videos from the video platform YouTube. While downloading the videos are converted into files suitable for storage on computers.

Streaming⁴⁹ and downloading of music and films occur with increasing frequency as the children grow older. Adolescents and young adults use almost all of the activities listed in the table on the following page more often than children. Merely video and computer games available online have an above-average appeal for the 9- to 13-year-olds.

Across all age groups, music is most frequently streamed, after which it is listened to via YouTube converters and filesharing services⁵⁰ such as BitTorrent. Only ten per cent purchase pieces of music online. The situation with films is no different. They too are most frequently streamed. But only six per cent additionally download films to their hard drives.

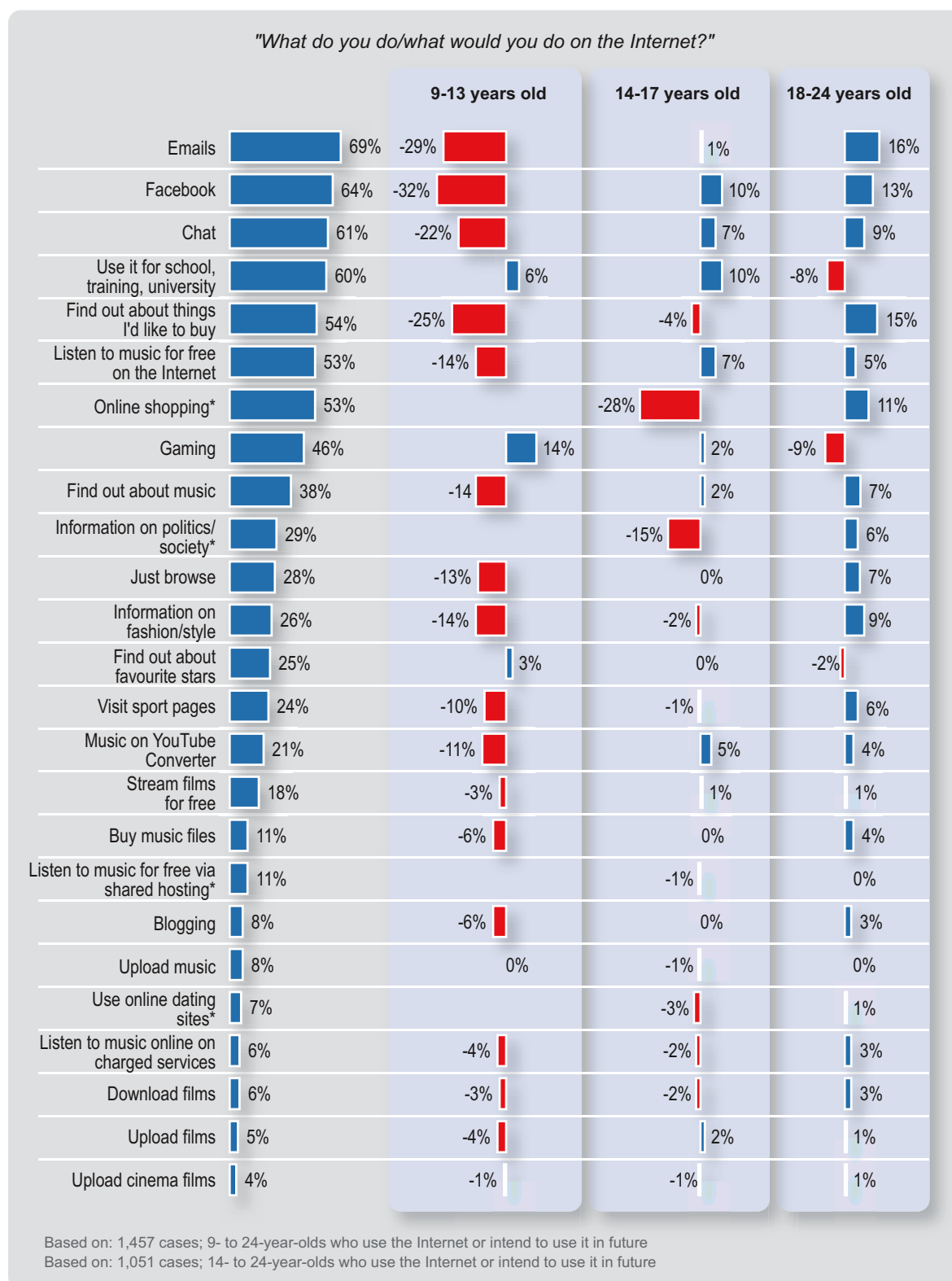
Reading example for the adjacent diagram:

69 per cent of the interviewees state that they use the Internet to send and receive emails. The 9- to 13-year-olds are 29 percentage points below this value, the 18- to 24-year-olds 16 per centage points above.

⁴⁹ Streaming is a method of data transfer in which the data are already visible or audible during transfer and not exclusively once they have been transferred entirely. Further, the device used to stream does not store the data.

⁵⁰ Filesharing describes the direct transmission of data between Internet users, (mostly) using a filesharing network. In this the files are normally stored on the individual participants' computers or on dedicated servers, from where they are disseminated to interested users. In most cases the individual users simultaneously upload the files for dissemination to other users during their own process of downloading.

Relevance of online activities



Web 2.0 – Dreaming of tomorrow’s world? Very few actively upload their own content.

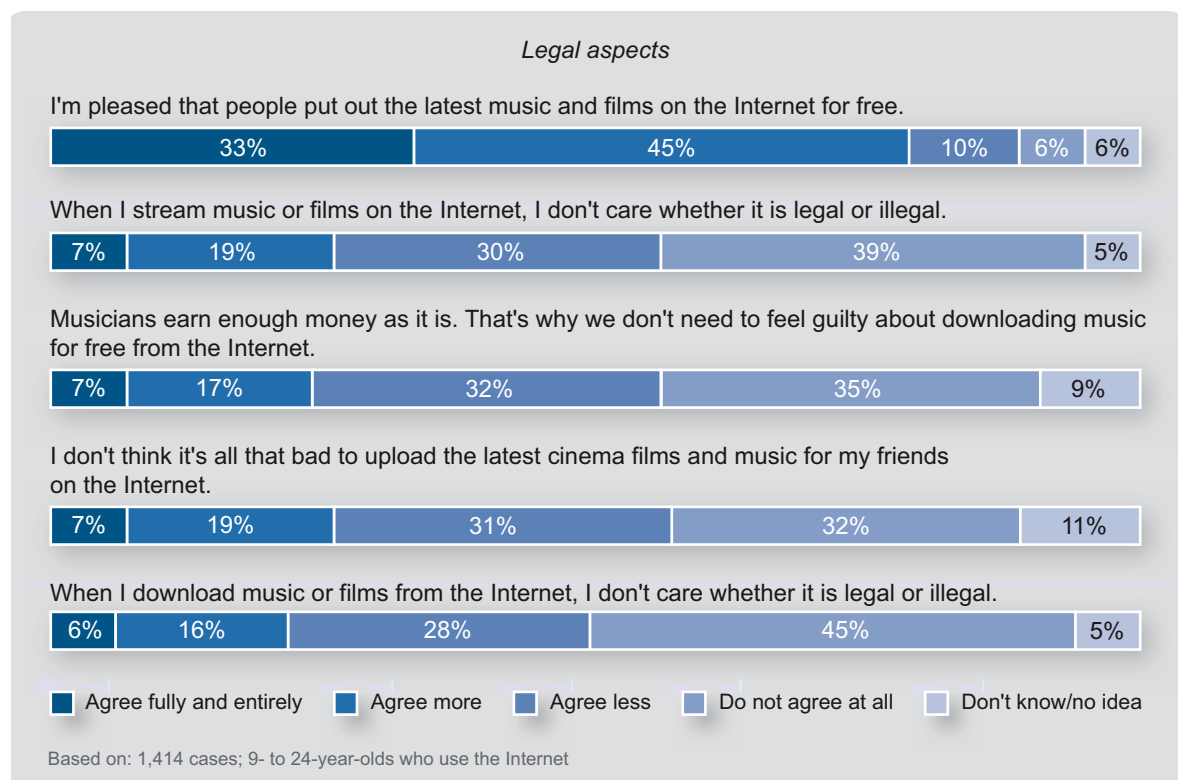
It is typical for children, adolescents and young adults to adopt a receptive attitude; only a minority produces user-generated content⁵¹. Only five and four per cent of the interviewees respectively upload their own films or cinema films. Sharing content that is already available on the Internet occupies far greater importance for children, adolescents and young adults.

The qualitative results show that it is standard practice among children especially to swap the CDs and DVDs they burn. This almost dies out as they grow older. Further, children elude (parental) control that in certain cases might apply to official purchases by privately swapping copied computer games.

8.2 Awareness of illegality

As we have seen, it is everyday practice for the younger generation to use content available for free on the Internet. But only two out of ten interviewees do not care whether they are engaging in legal or illegal activity by *streaming*, downloading and uploading films and music. The majority (over 60 per cent) is aware that this form of use is legally dubious at least. Over two thirds of the interviewees do not perceive the fact that the mainstream artists and top acts are rich enough as sufficient justification to procure their offerings without paying.

Legal understanding of online activities



⁵¹ User-generated content means media content that the party providing a web offering does not generate and which instead is created by the users of the web offering.

But content that others make available on the Internet for free is gladly accepted. Almost eight out of ten interviewees are pleased there are people who post free music and films on the Internet. People who upload content frequently enjoy a positive reputation. They are viewed as acting in the common good (“they’re doing us a favour”). The fact that commercial interests are equally important in the ‘free’ provision is overlooked.

“[...] a paedophile got six and a half years jail and Ralf Schmitz [Kim Schmitz], the guy behind Mega-upload who uploaded all kinds of games, films and songs, gets 25 years. It’s bang out of order that he gets so much. He didn’t even make all that much money out of it, perhaps the advertising. But you can’t earn any real money with that because all the downloads were free.” (aged 14-17, m)

“It is totally wrong to download things illegally. But even though it only costs 79 ct to €1.79 per song, I find it difficult to buy another iTunes card if I only want the one song. [...] I’ve got better things to do with the €15.” (aged 14-17, f)

“[...] well I used to buy all the music before I checked out how it all works with the downloads and stuff; and then a bill came for almost €600 and my dad really threw a fit. So a mate came round and explained how it’s done and since then I always do it without paying.” (aged 9-13, m)

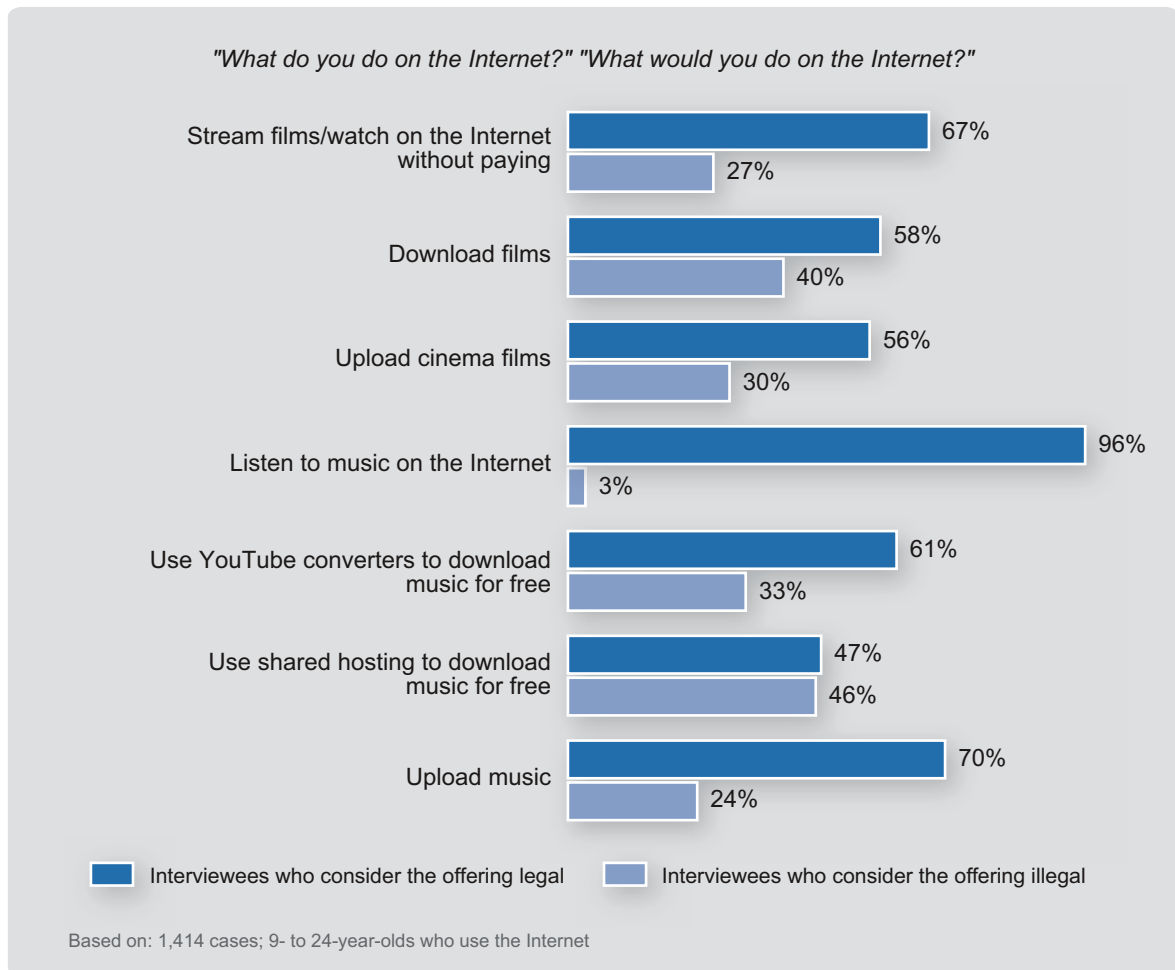
An appreciation of legality is always dependent on the actual use of an online offering

Whether a use (streaming, downloading or uploading) is actually viewed as legal or illegal does not depend on the format in which a content is provided (film or music). So persons who consider streaming or downloading and uploading films legal or illegal take a similar view to the same methods of sourcing music.

The principle criterion applied to the sense of legality among 9- to 24-year-olds in using content available online centres on the frequency of its respective use. The majority of children, adolescents and young adults who stream or download and upload films and music believe that it is legal. Violations of any possible property rights are far more likely to ensue against the backdrop of differences in opinion concerning legality than from any consciously illegal intent.

This correlation becomes particularly evident if a comparison is made between illegally downloading a film or song and stealing a DVD in a department store. Over half the interviewees (55 per cent) equate these two sets of behaviour and consider streaming, downloading and uploading of films and music to be illegal. In contrast, though, 38 per cent of interviewees believe that theft on the Internet is entirely different to theft in a shop. This group presents an entirely different assumption of legality: here the majority of children, adolescents and young adults believe that streaming, downloading and uploading films is legal, which means not at all serious.

Assessment of legal/illegal use



So even if children, adolescents and young adults concur that theft on the Internet and theft in a shop are equatable, it does not automatically follow that they view the variety of options to acquire films and music without paying as illegal. Approximately one third of those who consider streaming of films an illegal act do not necessarily equate downloading from illegal pages with stealing from a department store. Viewed as virtually impenetrable by Internet users, it is this vastly complex legal status that prompts the insecurities and inconsistencies. The diagram on the following pages highlights these findings:

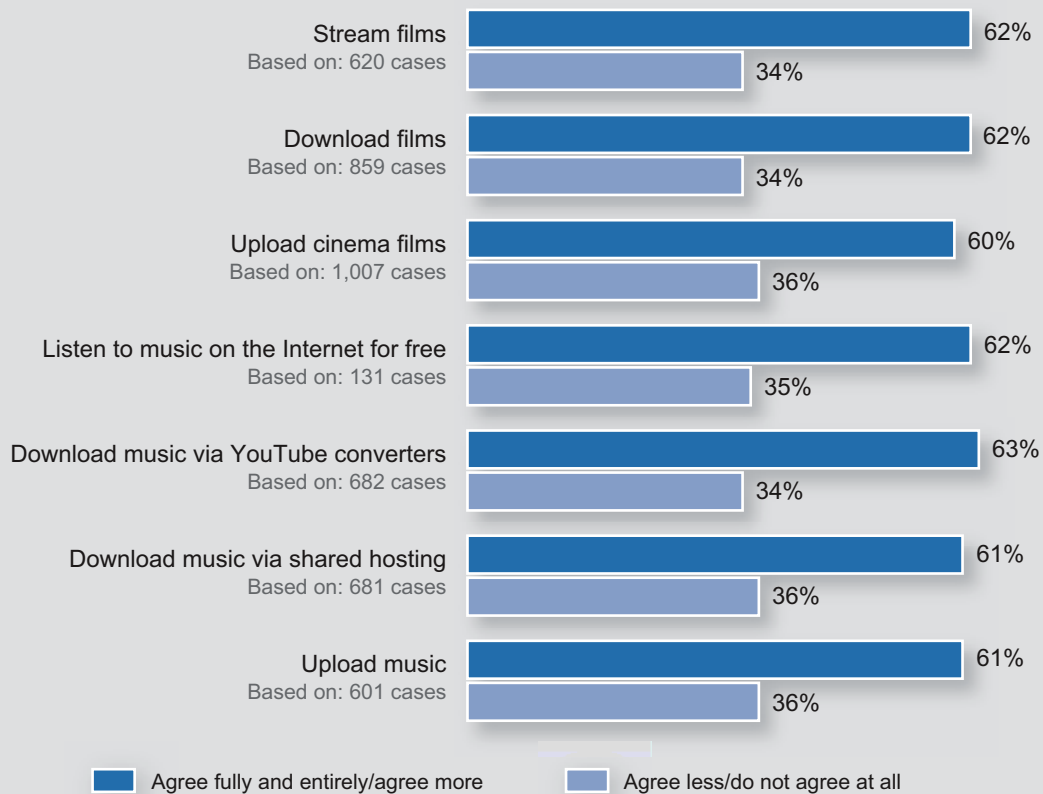
Reading example for the following diagram:

Of the 620 interviewees who consider streaming of films to be illegal, 62 per cent believe that downloading films and music is equatable with stealing DVDs or CDs in a department store. In contrast, 34 per cent of the interviewees hold that downloading films or music should **not** be equated with stealing DVDs or CDs in a department store.

Comparison between online/offline theft

"Downloading a film or music from an illegal site is the same as stealing a DVD or CD from a department store!"

The group that considered the following actions illegal voted as follows:



Based on: 1,414 cases; 9- to 24-year-olds who use the Internet

The adolescents and young adults emphasise furthermore in the qualitative survey that the active part they play by downloading content is of lesser significance. They do not appreciate their own actions as an act of theft because the assets are available by technical means and the access is possible without any direct consequences ensuing (e.g. being stopped at the exit to the department store, security alarm, etc.), and hence no damage is done.

A graded classification of risks is applied to the various forms of acquisition. In this the crucial question is: how probable is it that I could receive criminal charges? But the sheer necessity of owning certain commodities prevails in the eyes of those interviewed.

"It is a bit different, really. If you steal it in a shop you are actually stealing it from the shop because you should be buying it there. But if you download it from the Internet, from Pirate Bay⁵², it's as if someone was standing on the street with all his albums saying 'here you go, take what you like'." (aged 14-17, m)

"The difference is that in the one thing you really are doing something actively. I think it is a different thing if you're standing in a shop and then walk out with a CD you nick or if you're on the Internet and do something kind of passive." (aged 14-17, f)

"The way I see it is this: it's already up on YouTube. And if you got the same music on the radio and I recorded it there, I'd still have the same music." (aged 18-24, m)

"I mean why should I buy something in a shop or get myself a DVD or CD on Amazon? In the end I wait two or three days and end up forking out €20, €30. I prefer pocketing the cash and bang, just a few clicks and I can watch the film. Maybe not in perfect quality." (aged 18-24, m)

It's allowed if everyone does it.

Hence the interviewees are frequently aware that many of their activities on the net are not legal. And so a variety of reasons are called upon to justify the practice of continuing regardless: The 'free' download of content otherwise available exclusively to buy is legitimised primarily by pointing to standard practice, used in the majority of cases as a yardstick for one's own actions.

Over the passage of time and also within a social context, the adolescents and young adults observe that there are no consequences. The daily practice of converting and downloading files leads to a progressive abstraction of any problem ("*all this time and nothing has happened*"); and in the perception of the protagonists they are merely doing what everyone does ("*nobody has ever got into trouble*").

⁵² The Pirate Bay is a BitTorrent indexer established in 2003 and offered by the Swedish Pirate Party since 2010. This service does not participate actively in file sharing and instead merely provides a meeting place for providers and requesters of certain files. The Pirate Bay does not itself offer any files protected under intellectual property rights and hence cannot be charged under Swedish copyright laws.

"I think we all just look to what most people do. So for instance if everyone is illegally downloading films you end up doing it yourself. And I don't think that many people stick to the laws and rules."
(aged 18-24, m)

Besides seeking orientation in *"what everyone is doing"* as a legitimisation strategy, there are other explanatory mechanisms to justify one's own actions, above all the following:

- Not enough money, also films and music are too expensive.
- Downloads via YouTube are legal because the converter is not banned. So in the eyes of the interviewees the onus is on the state, the police or *"authorities of some kind"* to introduce clear structures.
- Free dissemination helps the music reach a wider audience, a positive aspect for the artists (*"YouTube creates stars"*).
- In some instances the interviewees assert: mainstream stars and top acts are rich enough already and don't need to earn even more.

There is also a tendency to strike comparisons with violent crime and hence to trivialise the provision of content for free download that otherwise would only be available at a price:

"Yes they should punish stalking and then you should be allowed to download films and music for free. [...] it's totally different. If you download a song you're not hurting or damaging anyone..."
(aged 9-13, m)

"Yes, money's nothing next to that. If you compare it to rape." (aged 18-24, f)

9. Trust and security: Navigating the digital world

Children, adolescents and young adults fail to perceive a wide range of risks when surfing the Internet – until the topic becomes a problem. Initially they experience an unquestioning self-evidence in completing numerous everyday activities (in particular maintaining their social contacts) online. Nevertheless the children, adolescents and young adults are indeed sensitised when it comes to the risks of the net and have established security mechanisms based on a variety of trust concepts.

The sense of security that the younger generation feels on the net has also changed in the wake of the news of how covert services (above all international intelligence gathering on sovereign states) act. A representative online survey conducted by DIVSI on the monitoring of electronic data and its impact on behavioural patterns on the Internet⁵³ indicates that almost four out of ten interviewees (37 per cent) in the overall population now have a worse sense of security. Moreover, 18 per cent state that they have already changed their online use. This development is as manifest in the younger generation as it is in the population as a whole. The sense of security among young adults has deteriorated similarly since the news of the NSA affair broke (38 per cent). But there are inconsistencies between the risks perceived and actions undertaken here.

The following is intended to illustrate how young people manage the inconsistencies between a lack of trust in online offerings on the one hand and their intense use on the other. Hence the focus of interest is placed on pivotal aspects of risk awareness, the safety mechanisms installed and the relationship between use and specific trust concepts. A factor analysis – conducted on the group of adolescents and young adults and whose methodical structure and procedure the following shall explain in detail – succeeded in consolidating in a concise summary these three thematic complexes to deliver overlying concepts of security and trust and hence to elucidate the fundamental modes of access to these topics.

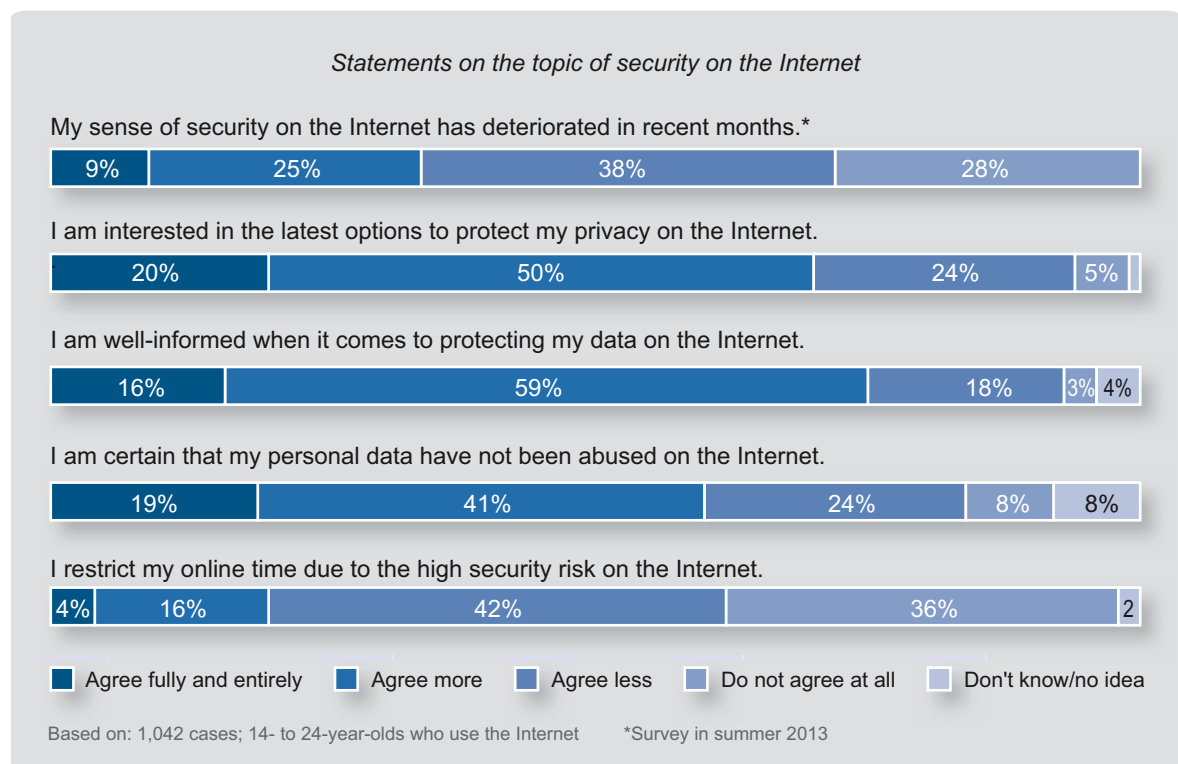
⁵³ German Institute for Trust and Security on the Internet 2013: PRISM und die Folgen – Sicherheitsgefühl im Internet verschlechtert. Quick survey on PRISM in July 2013., <https://www.divsi.de/wp-content/uploads/2013/07/2013-07-03-DIVSI-PRISM-Blitzumfrage-PK.pdf>

9.1 Perception of security

The perception of security has deteriorated – without in any way impacting on the time spent online

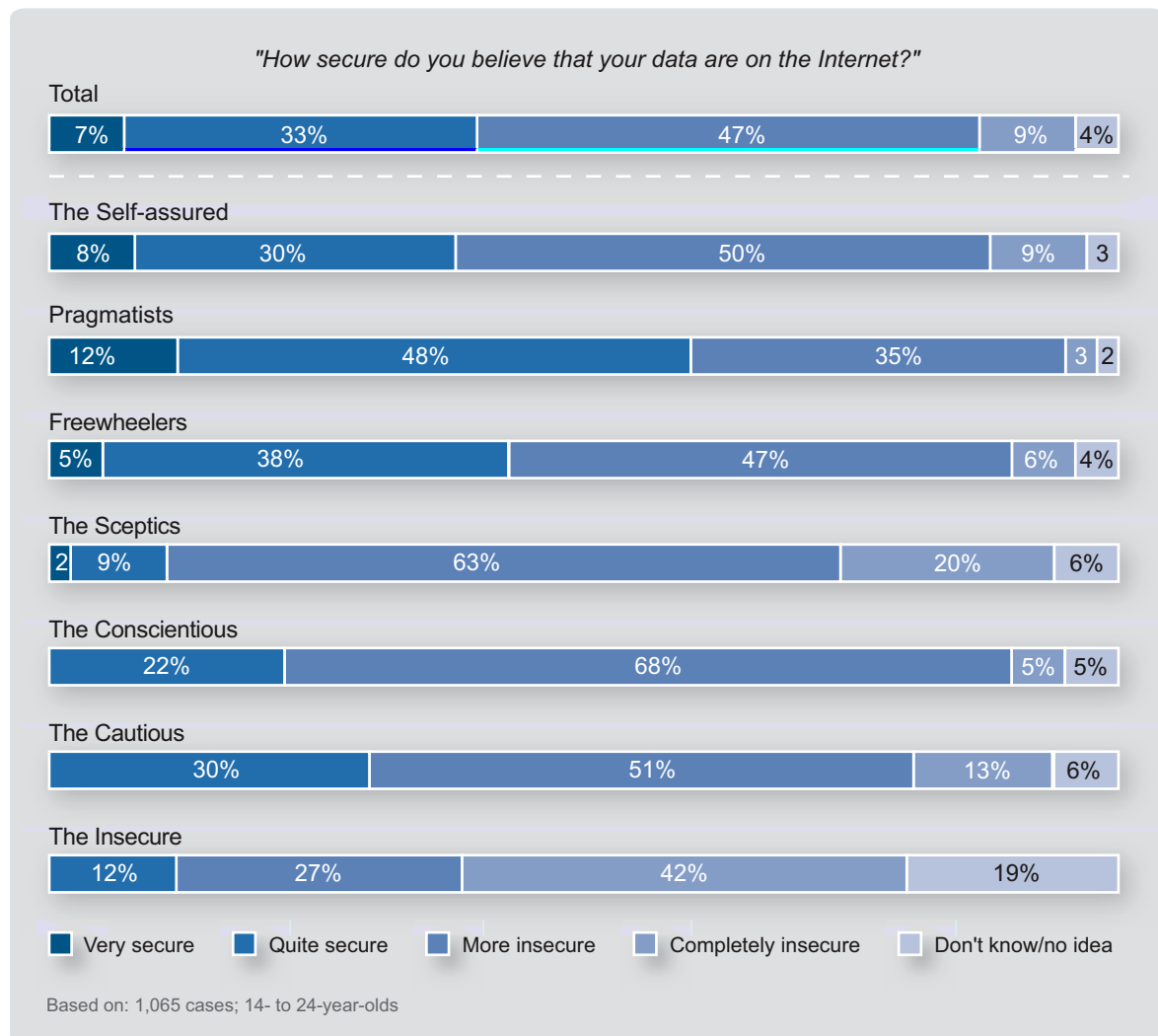
Over one third of adolescents and young adults acknowledge that the perception of security on the Internet has worsened. We see this in the following diagram. But the time spent online has not been correspondingly curtailed. Four per cent of adolescents and young adults are willing to restrict their Internet time based on the substantial security risk. Another 16 per cent agree more with this statement. But nevertheless it is clear: living offline is not an option.

Perception of security among 14- to 24-year-olds



The findings on data abuse reveal similar inconsistencies: 60 per cent of the adolescents and young adults believe that their personal data have not yet been abused. But at the same time merely 40 per cent of the 14- to 24-year-olds believe that their data are secure on the Internet. There are also substantial differences manifest here when it comes to the U25 Internet milieus: The *Self-assured*, *Pragmatists* and *Freewheelers* are more likely to believe that their data are secure on the Internet, while representatives of the 'reticent' U25 Internet milieus conjecture more substantial insecurities. None of the *Conscientious*, *Cautious* or *Insecure* believe that their data are 'very secure'.

Security of personal data on the Internet



9.2 Risks

Differentiated perceptions of risks among adolescents and young adults

Children have not yet created any kind of elaborate universe of risk. In their scope of reference they focus mainly on personal privacy. They perceive the dangers associated with the online world as exerting immediate influence on their direct environment. The idea of unlimited data availability on the Internet is another source of their fears.

“There was this girl [...] and she was playing on something like that and then she chatted with this boy, apparently a boy, who said ‘I’m 10, and you?’ ‘Oh me too. What a coincidence.’ And she really fell for it. And they met up and suddenly there’s this 40-year-old man in front of her. Yeah, and he kidnapped her and this whole thing happened and in the end there were two people dead.” (aged 9-13, m)

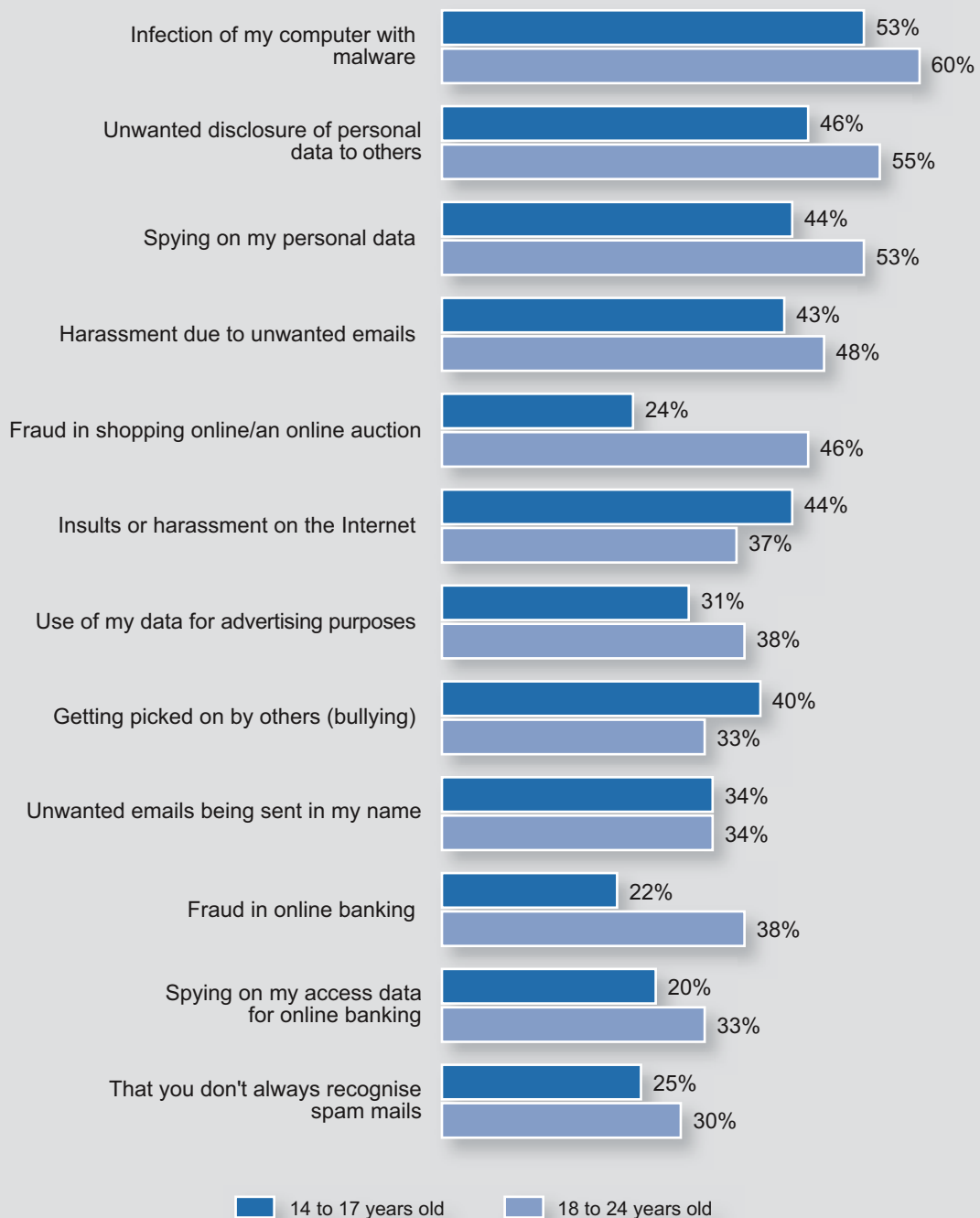
“Yes, because anyone can go there. Like Facebook, when you fall in love on the net and you want to meet up and think it’s a young man and then it’s this old granddad who just snatches you, like that.” (aged 9-13, f)

“Nothing ever gets out of the Internet. Even if you delete it, then it’s sometimes like when the pictures are uploaded to the Internet and you can’t delete them anymore. Or videos. You can’t get them off again. Somehow they’re just hiding or something. And no one can ever delete it.” (aged 9-13, m)

But the perception among adolescents and young adults today is already more differentiated and definite. Mainly they perceive the risks associated with Internet use as coming from the threat of viruses and malware, also from the unauthorised dissemination of their data. And while malware and the unwanted transfer of data constitute the greatest risks of Internet use across all segments of the population, there is also a series of divergent perceptions of risks, for instance with regard to fraudulent crimes, spying on access data or the dangers posed by stalking. Hence there are distinct differences in the manner in which the adolescents and adults interviewed view these risks. Although young adults plainly consider fraudulent activities and spying on access data during online shopping or online banking as risk factors, the attendant risks hold less relevance for adolescents – also because they have greater restrictions when it comes to shopping or banking online. In contrast, though, the adolescents possess a far more heightened risk awareness than the young adults when it comes to attacks prompted by stalking and bullying.

Risks on the Internet – 14- to 24-year-olds

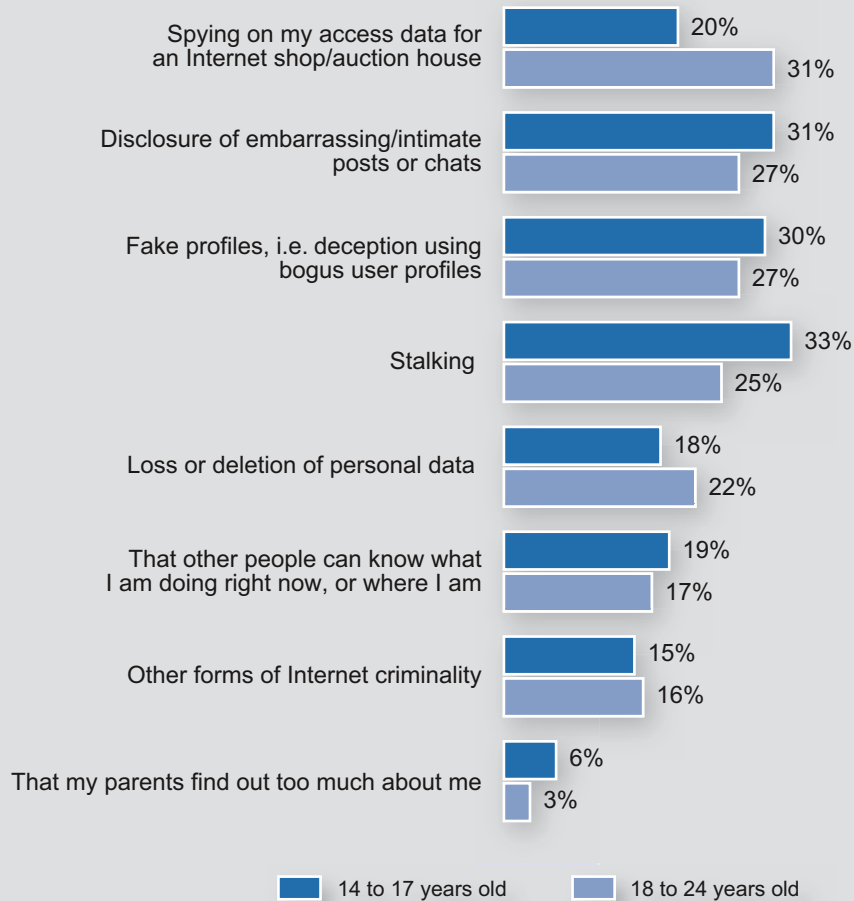
"What do you feel are the greatest risks when using the Internet?"



Based on: 1,042 cases; 14- to 24-year-olds who use the Internet

continued on page 146 ➔

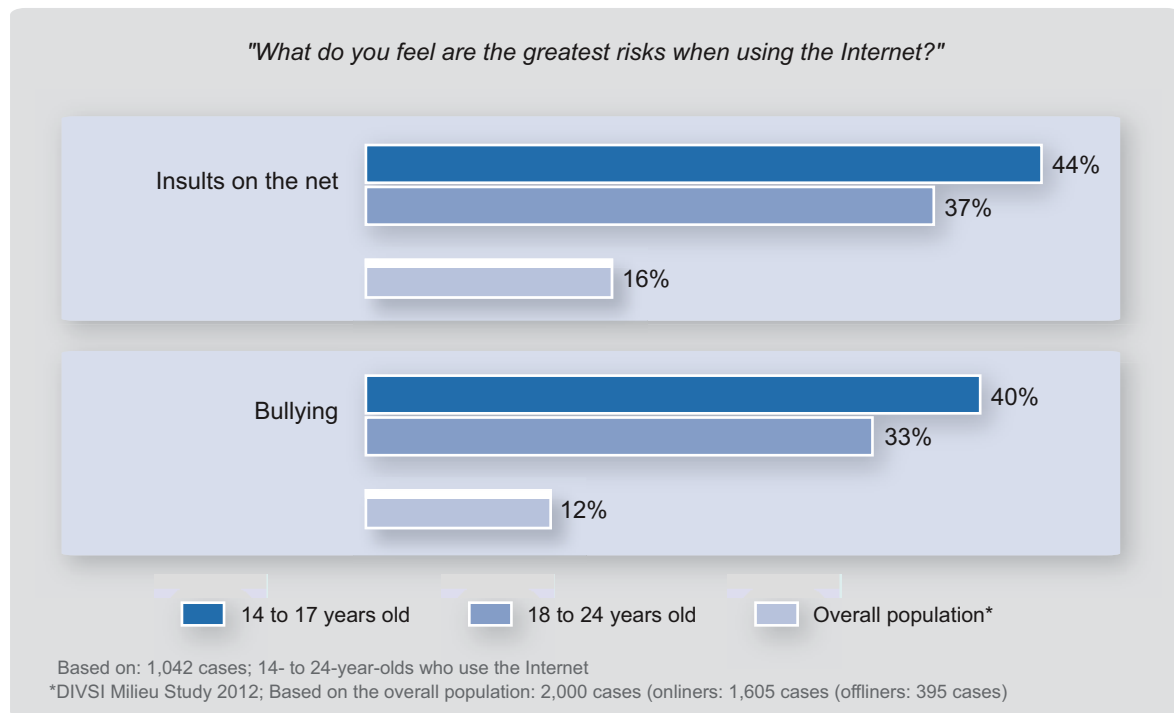
continued on page 145



Based on: 1,042 cases; 14- to 24-year-olds who use the Internet

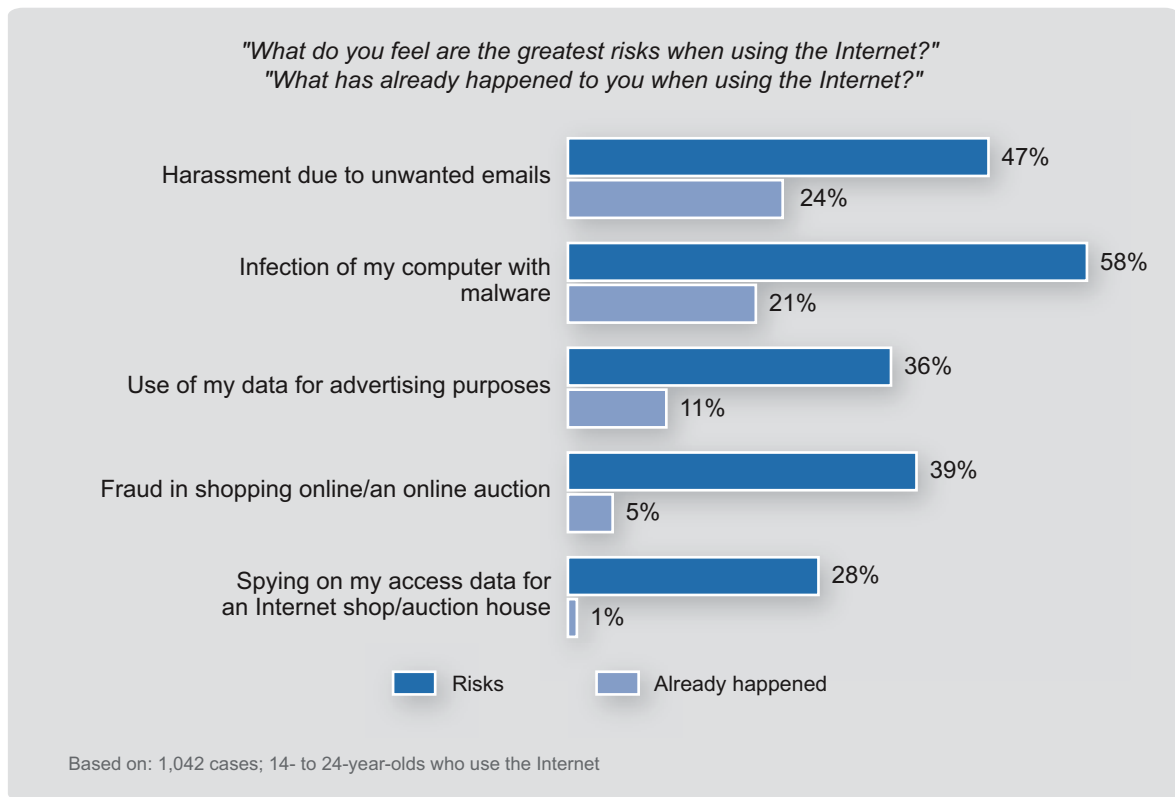
Personal attacks possess substantially greater significance in the group of adolescents and young adults compared with the population as a whole. While 44 of the interviewees fear insults on the net, only 16 per cent of the overall population share these concerns. 40 per cent of adolescents and young adults view bullying as a problem, while the same applies to merely 12 per cent of the general population in Germany.

Perception of risks concerning bullying



In general, though, it is fair to conclude that a distinct awareness does exist for the possible risks that Internet use may pose. In contrast, the frequency with which people actually experience this form of injury is quite low at first glance. But risks of infection with malware, harassment through unwanted emails and spying on access data nevertheless remain topics of high concern. 21 per cent of the adolescents and young adults interviewed have already experienced infection of their own computers by malware. And reports on comparable experiences in the circle of friends and their direct repercussions, sometimes involving financial consequences, which boost these figures to 58 per cent contribute to a quite distinct risk awareness concerning this threat.

Top 5 risks and those affected



Children are only worried by infection of their computers with malware (eleven per cent).

The factor analysis permits a summarising assessment of the differences between age groups of adolescents and young adults described herein. Five underlying dimensions were identified as concerns the perceived risks of Internet use.

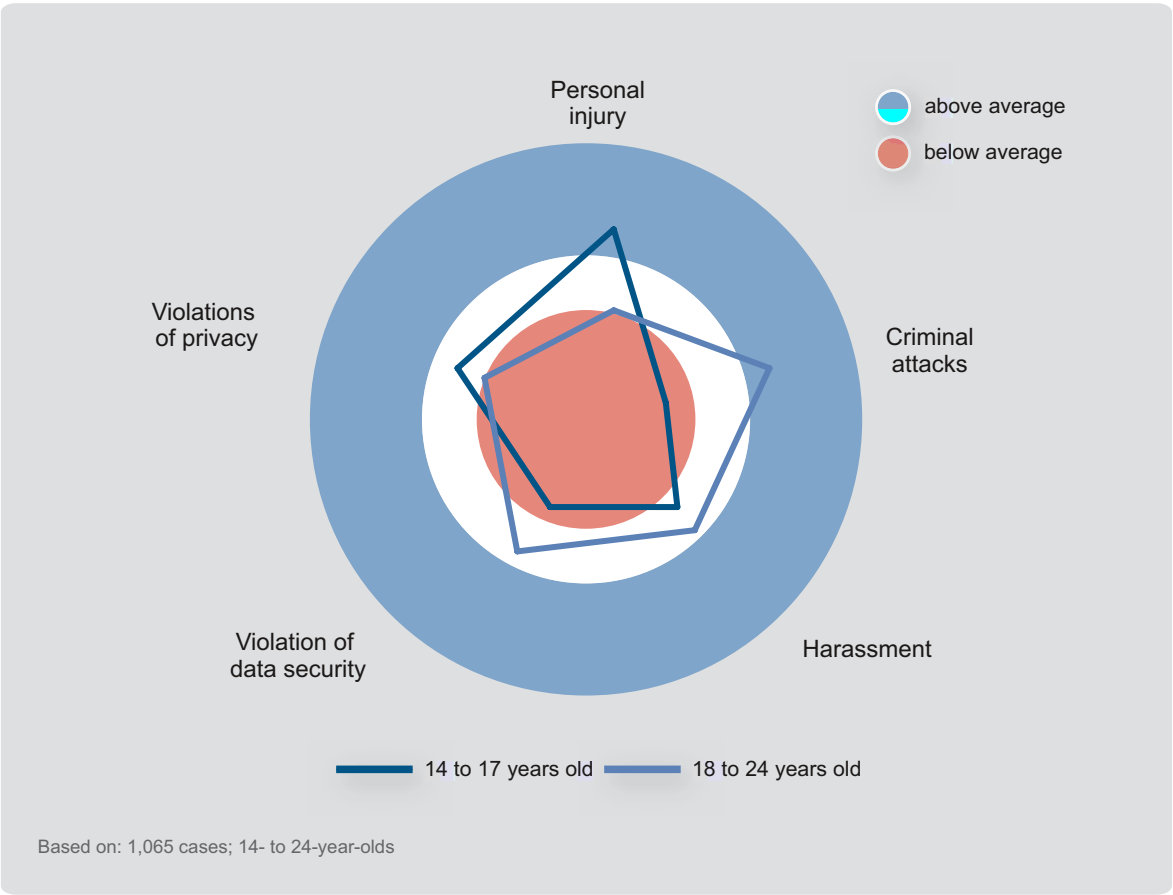
Dimensions	Typical statements
Personal injury	<ul style="list-style-type: none"> ■ <i>"Getting picked on by others (bullying)"</i> ■ <i>"Insults or harassment on the Internet"</i> ■ <i>"Stalking"</i>
Criminal attacks	<ul style="list-style-type: none"> ■ <i>"Fraud in online banking"</i> ■ <i>"Spying on my access data"</i> ■ <i>"Fraud in shopping online or online auctions"</i>
Harassment	<ul style="list-style-type: none"> ■ <i>"That you can't always recognise spam mails"</i> ■ <i>"Harassment due to unwanted emails (spam mails)"</i> ■ <i>"Use of my data for advertising purposes"</i>
Violation of data security	<ul style="list-style-type: none"> ■ <i>"Infection of computer with malware"</i> ■ <i>"Spying on personal data"</i> ■ <i>"Unwanted disclosure of personal data to others"</i>
Violation of privacy	<ul style="list-style-type: none"> ■ <i>"That my parents find out too much about me"</i> ■ <i>"That other people can know what I'm doing at the moment or where I am"</i> ■ <i>"Loss or deletion of personal data"</i>

Before all else, adolescents perceive social risks on the net, while young adults highlight the economic risks.

Adolescents view personal harm in the form of mobbing, stalking and insults as the main risks on the net. The following diagram presents a distinct over-representation among adolescents, while young adults are merely located mid-table. Adolescents respond with greater severity to violations of privacy by third parties and even their own parents, experiencing this aspect as a greater risk than young adults, who are under-represented here.

In contrast, criminal attacks, abuses of data security or harassment acquire greater relevance with increasing age. For instance, young adults perceive criminal attacks, e.g. fraud in online banking or shopping or spying on access data, as the largest risks associated with the Internet.

Dimensions of risk perception



Reading example:

Young adults have a below-average perception of the risk that violations of privacy pose, while in their eyes criminal attacks possess above-average significance.

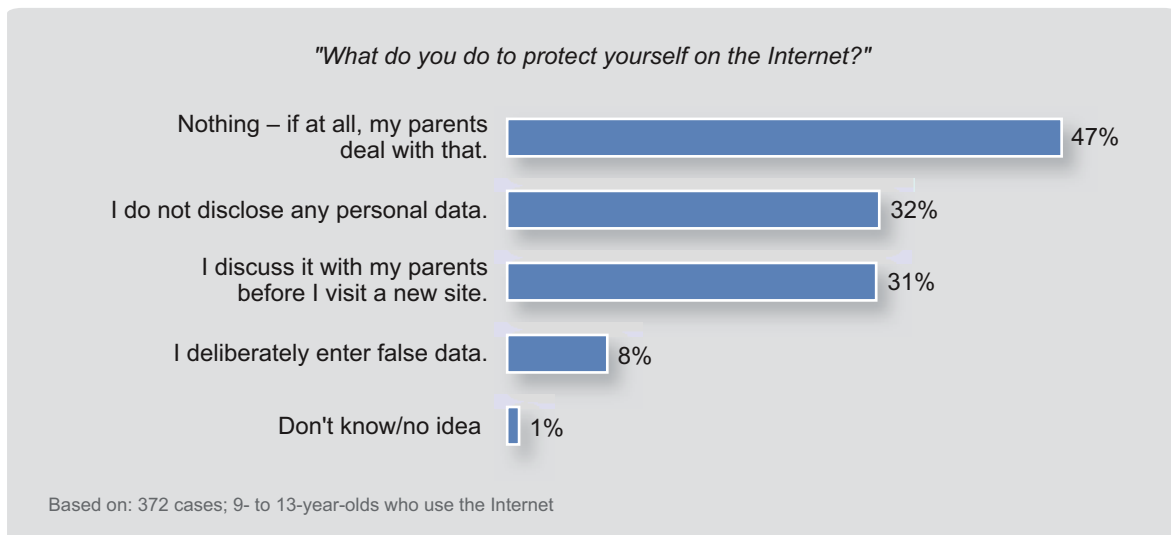
9.3 Security measures

Virus scanners and firewalls are the most frequent security measures deployed.

But it is not until the age of adolescence and emerging adulthood that the younger generation actively takes safety measures. By and large the parents deal with these aspects for their younger children.

Among almost half of the 9- to 13-year-olds, exclusively the parents look after protective measures. Three out of ten children state that the active precautions they take include a refusal to disclose any personal data or discussing with their parents before visiting a website.

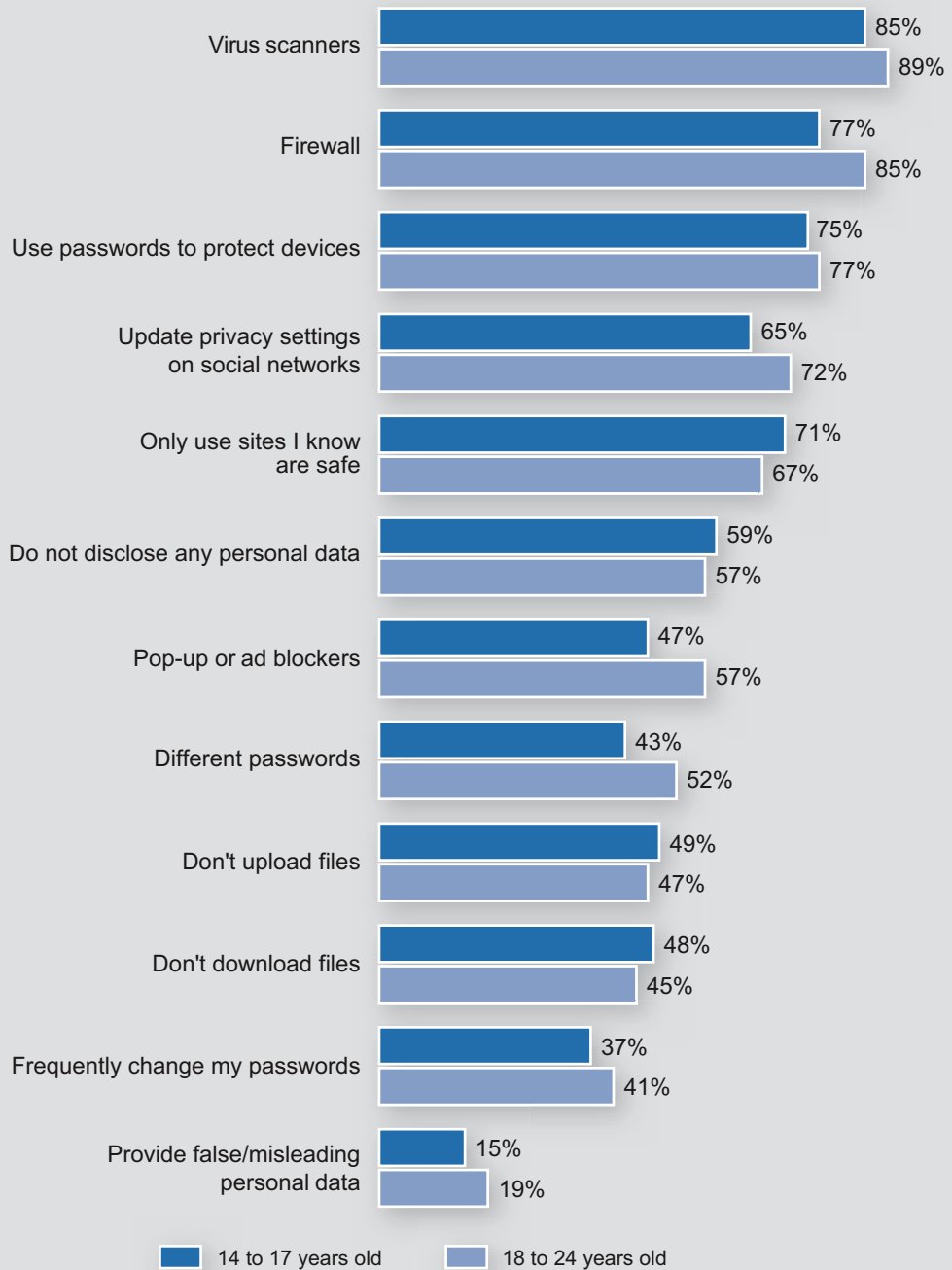
Security on the Internet – Children



Adolescents and young adults primarily use software as protection against Internet attacks. Next in line come individual protective measures such as the use of passwords and privacy settings in online communities.

Security measures – Adolescents and young adults

"What security measures do you use on the Internet?"



Based on: 1,042 cases; 14- to 24-year-olds who use the Internet

Young adults take more stringent measures to protect themselves against outside attack on the net

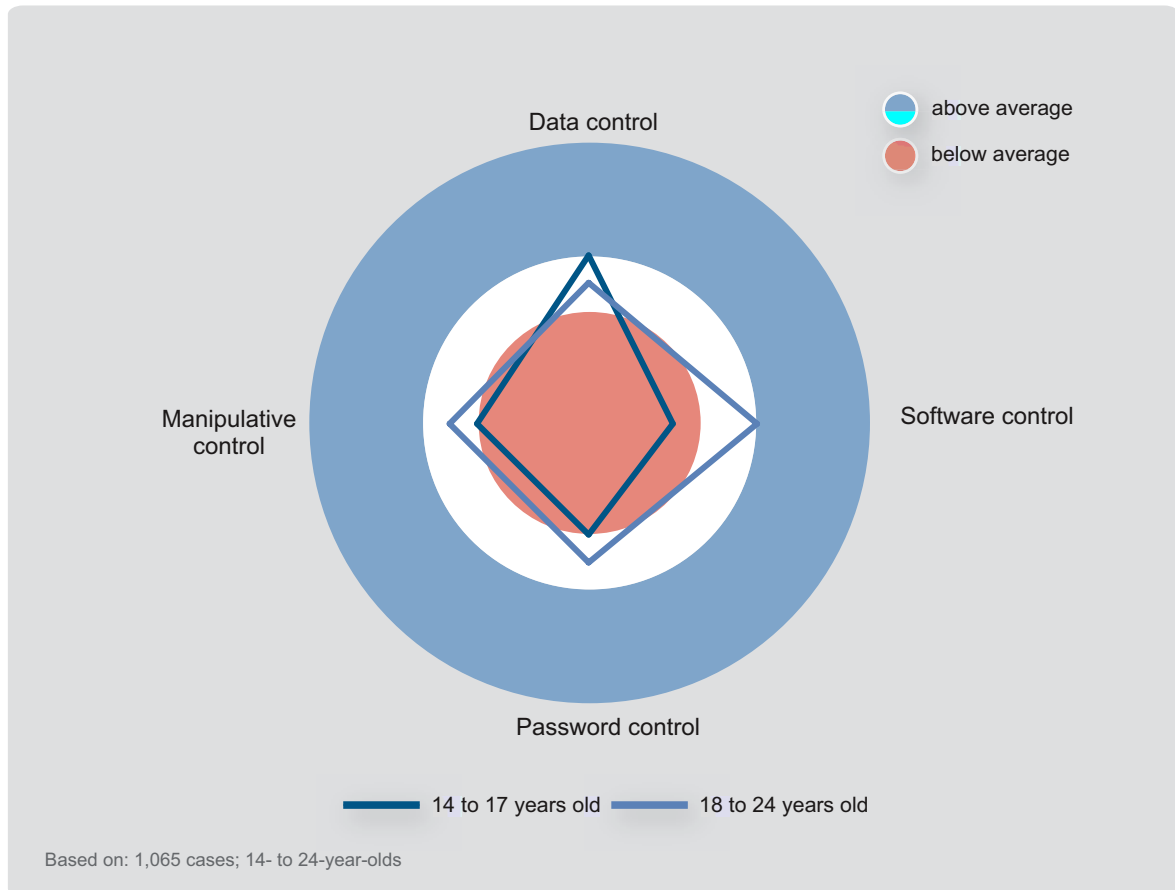
Compared with adolescents, young adults draw on a wider array of alternatives to protect themselves against malicious external attacks. For instance they may use antivirus software or different passwords; they are also more inclined to create fake profiles. Adolescents use antivirus programs, firewalls, etc., frequent changes in passwords and deliberately false data with lesser frequency. Instead they pay greater attention to eschewing uploads or downloads of data on the net or the disclosure of personal information about themselves. Further, they are more likely to restrict their online use to the pages they believe are secure.

Four underlying dimensions were identified when it comes to the security measures taken:

Dimensions	Typical statements
Data control	<ul style="list-style-type: none">■ <i>"I take care not to upload data"</i>■ <i>"I take care not to download data"</i>■ <i>"I do not disclose any personal data"</i>
Software control	<ul style="list-style-type: none">■ <i>"I have installed a virus scanner"</i>■ <i>"I have activated my firewall"</i>■ <i>"I use pop-up or ad blockers"</i>
Password control	<ul style="list-style-type: none">■ <i>"I change my passwords frequently"</i>■ <i>"I always use different passwords"</i>■ <i>"I use a personal password to protect all my devices"</i>
Manipulative control	<ul style="list-style-type: none">■ <i>"I provide false or misleading personal data"</i>

The following diagram illustrates at a glance the characteristics of security measures deployed and the distinctions between the various age groups.

Dimensions of security measures



Reading example:

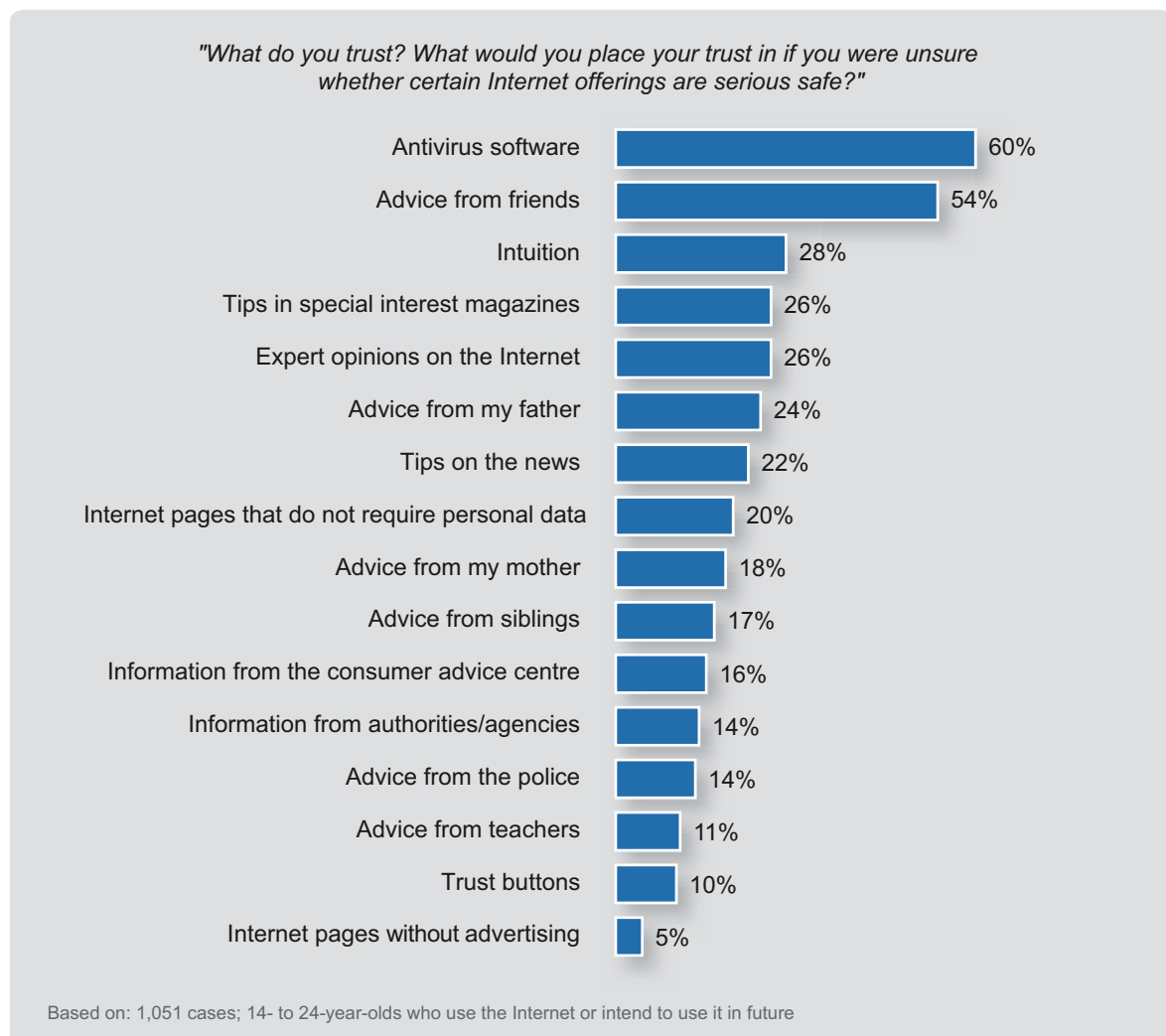
Software control holds below-average significance for adolescents, while for young adults it acquires almost above-average importance.

9.4 Trust

Anchors of trust are dropped in every phase of youth

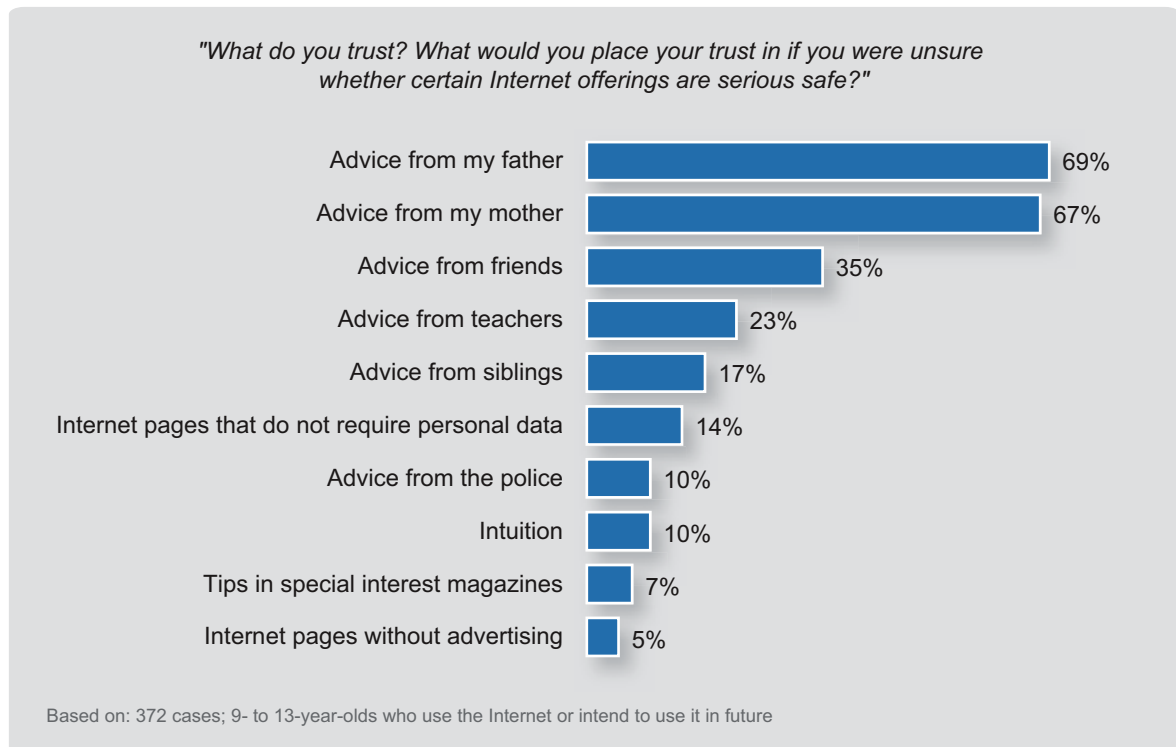
Children, adolescents and young adults utilise a wide variety of different options to classify an Internet site as safe or unsafe. Adolescents and young adults tend to rely more on the technical functions of antivirus software. In addition, they depend more on the know-how they source within their own peer group, as well as their personal intuition. The latter plays a key role, especially among young adults. Based on the experience they have acquired over the course of years they believe quite frequently in their own ability to intuitively assess an Internet offering. Adolescents are more likely to take the content of an Internet offering as a relevant criterion. Hence the question of whether a page functions without disclosing personal data is included in the assessment of trustworthiness. In contrast, institutions such as consumer advice centres, authorities, agencies and the police are substantially less relevant.

Institutions of trust – Adolescents and young adults



Children on the other hand place all their trust in their personal environment.

Institutions of trust – Children



The relevance of online offerings overcomes deficits in trust

This chapter began with the inconsistencies in the relationship between perceived risks, applied security measures, relevant dimensions of trust and actual Internet use. The discrepancy is particularly striking when it comes to the use of online communities, and above all Facebook. Registering 64 per cent, the use of a community constitutes the most frequent Internet activity. But at the same time Facebook ranks quite low in terms of perceived trustworthiness: On a scale from zero to ten extending from 'do not trust at all' to 'I have unquestioning trust', the online offering does not climb beyond an average trust rating (5.4) It is noticeable that the level of trust placed in Facebook does not change significantly with the frequency of use. Avid users of Facebook do not trust the network any more than someone who visits it just once a week.

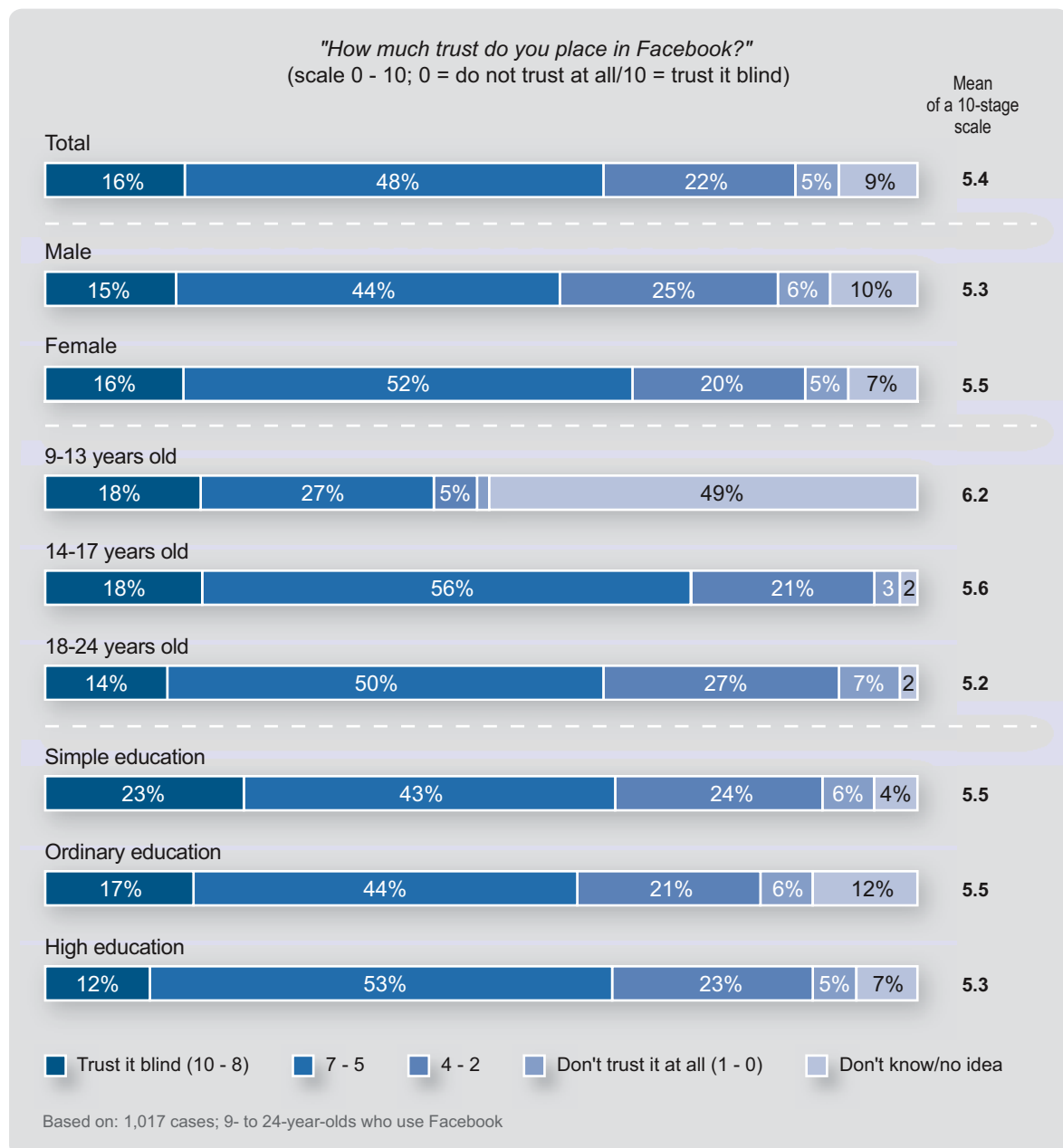
In addition trust in Facebook is largely independent of socio-demographic characteristics. Almost 20 per cent of Facebook users do not trust the social network (values between 0 and 3 on a scale from 0 to 10); and in this neither gender nor education influence the average result.

But there are substantial differences when it comes to the interviewee age. For instance almost half of the children who use Facebook do not feel equipped to assess Facebook's trustworthiness. It appears that trust is not yet a crucial criterion, i.e. one on which it is important to have an opinion. In

contrast, the adolescents and young adults perceive Facebook's trustworthiness in a far more critical light.

Broadly speaking the limited and certainly fragile trust in the online offering barely impacts on the use of this online community. No restriction in the use of Facebook, or an escalation of the ascertained trust deficiencies into definite mistrust towards the online offering, was identified. Obviously the significance of this online community in the everyday lives of young people and its habitual use interfere with this lack of trust.

Trust in Facebook – Socio-demographics

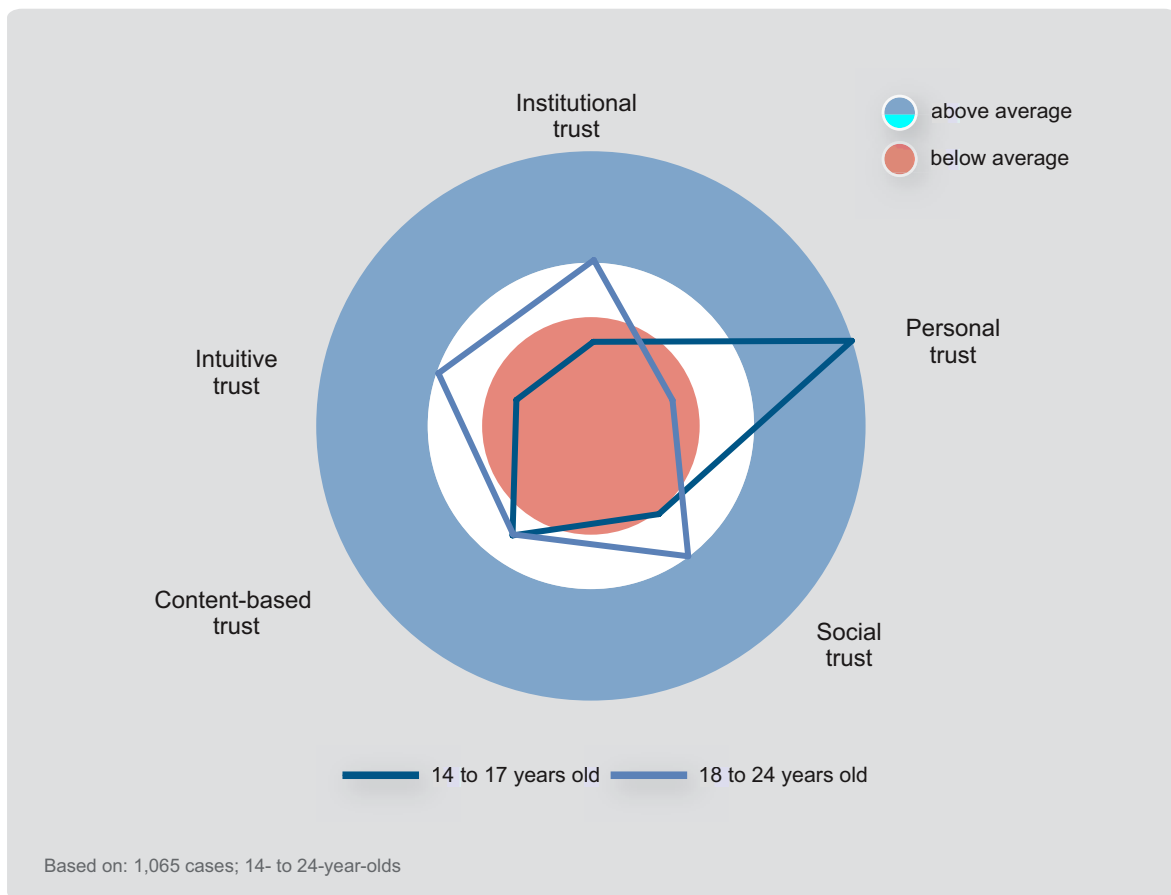


Based on the factor analysis the trust is presented in five dimensions:

Dimensions	Typical statements
Institutional trust	<ul style="list-style-type: none">■ <i>"In information from the consumer advice centre"</i>■ <i>"In information from authorities and agencies"</i>■ <i>"In advice from the police"</i>
Personal trust	<ul style="list-style-type: none">■ <i>"In advice from my mother"</i>■ <i>"In advice from my father"</i>■ <i>"In advice from teachers"</i>
Social trust	<ul style="list-style-type: none">■ <i>"In trust buttons"</i>■ <i>"In advice from friends"</i>■ <i>"In antivirus software"</i>
Content-based trust	<ul style="list-style-type: none">■ <i>"Internet pages that do not require me to provide personal data are safe"</i>■ <i>"Unwanted disclosure of personal data to others"</i>
Intuitive trust	<ul style="list-style-type: none">■ <i>"In my own gut feeling"</i>

The diagram on the following page plainly shows once more the relevance of personal trust among adolescents, as well as how quickly this dimension of trust descends into insignificance for young adults. It follows that the spectrum of relevant trust dimensions broadens as the young people get older, becoming contemporaneously detached from the natural institutions of inter-family trust that are so typical of childhood and early youth.

Dimensions of trust



Reading example:

The significance of personal trust is significantly above average among adolescents. In contrast, they barely find any relevance in institutional trust.

The search for trustworthy contacts

Based on examples such as Facebook, it is apparent how habits of use and the manifest importance of online offerings in everyday life can bridge and overcome possible cracks in the relationship of trust that young people experience towards these offerings.

Nevertheless, a certain need for trustworthy institutions remains apparent. The question of personal trust when using the Internet holds a very distinct significance for adolescents in particular. They are most likely to trust people from their personal environments. At the same time, though, they are frequently confronted with situations in which they are unable to enter into any 'real' conversations about the Internet with their parents, for instance. Often enough the adolescents do not consider their parents competent partners. Adolescents tend to perceive the references to possible risks and advice

on precautionary measures as wholesale and generalised. What they do not experience is concrete reasoning or actual support.

“My parents rarely use the Internet and weren’t able to teach me much; all they tried to get me to understand is that I should be careful.” (aged 18-24, f)

“Well, I mean, what exactly about the Internet are you meant to discuss with your parents?” (aged 18-24, m)

Apparently the Internet is rarely mentioned as a medium of positive experience and fun. School also seems unable to deliver very much new information when it comes to the Internet. In the perception of the interviewees the topics mentioned with greatest emphasis appear constantly centred on risks, with one should counter with cautious use or abstention.

It became clear in the prior qualitative study that children possess a distinct interest in discussing topics around security on the Internet, but that these questions are rarely addressed, although the Internet is adopted early on as an instrument of research and above all as a tool in homework.

In contrast, adolescents appeared more likely to dispassionately list the topics they dealt with at school, focussing mainly on the risks attendant to disclosing personal data, posting pictures and contacting strangers. The adolescents plainly demonstrate that these recurring generalisations are no longer enough to hold their attention. Equally, however, the adolescents do not view their teachers as competent persons to contact in questions of current relevance in the digital lives of young people, for instance the legality or illegality of download options.

In some cases the Internet has not even been discussed with the adolescents during classes.

“At school? Just the same old stuff that adults want to tell teenagers again and again: the Internet is dangerous and unsafe.” (aged 14-17, f)

“When I finished school four years ago my teachers didn’t even know how to connect a beamer cable to the computer [...] not to mention anything about the Internet.” (aged 18-24, f)

“Can’t remember it was ever mentioned at school.” (aged 18-24, m)

10. Summary and proposals for action

These days digital media are more than just firm anchors in the everyday lives of children, adolescents and young adults; instead being online and using the Internet daily is the normal state of affairs. Thanks to mobile devices such as smartphones and tablet computers, the Internet can and is used almost anywhere and at any time. It comes as no surprise, therefore, that young people acquire the subjective sense of having an '*always on status*'. Messaging services such as WhatsApp and their current popularity serve merely to heighten this perception. Offliners are a rare species among children, adolescents and young adults.

Nevertheless, the DIVSI U25 Study has revealed distinct differences between the groups of young people. Online does not mean the same to everyone; its manifestations are multifaceted and different across the various levels of analysis. Milieu-specific peculiarities possess particular relevance, and differences are plainly apparent with a view to the degree of formal education and across the various age groups, also.

The identified DIVSI U25 Internet milieus clearly and evidently reveal that the attitude towards, and handling of, the Internet differ strikingly according to lifeworld backgrounds. The differences that come to the fore are found in the variously distinctive, subjective self-assurance in handling the net in general and the perception of dangers and risks in particular, as well as the individual attitudes to the personal relevance the Internet will acquire in future.

The most active onliners with a self-evident and intense use of the Internet are found in the milieus of the *Self-assured*, the *Pragmatists* and the *Freewheelers*. Taken together these U25 Internet milieus account for the lion's share of adolescents and young adults.

The *Sceptics*, the *Conscientious*, the *Cautious* and the *Insecure* are U25 Internet milieus that bring together adolescents and young adults who characteristically possess a more selective and conscious, perhaps even reticent or uncertain, use of the Internet.

10.1 Digital participation as the cornerstone of social participation

The conditions under which Internet access is acquired differ despite intense use of the medium across the various levels of formal education. The lower the degree of formal education, the more likely it is that the young persons must pay for their own Internet access at home, although it is precisely these groups that face the greatest financial constraints.

Differences in education are equally manifest when it comes to subjective aplomb and self-assurance in handling the Internet. Children, adolescents and young adults with low levels of formal education claim they possess fewer Internet skills than interviewees with higher levels of formal education. And even if the interviewees on each level of education primarily use the Internet as a medium of communication and entertainment, those with higher formal education will nevertheless

more frequently and consciously use the Internet as an instrument of information and learning than those with less formal education.

Clear milieu-specific distinctions are manifest concurrent to an assessment of how the Internet's significance will develop in connection with one's own personal and professional future. Both the *Self-assured* and the *Pragmatists* believe that in future, a life without Internet will not be possible. In contrast, sections of the *Conscientious* and *Sceptics* milieu hold that a future without the Internet most certainly remains feasible. Compared with the average, the milieu of *Freewheelers* tends to believe that in future, the medium will become less significant. At the moment they view and use the Internet primarily as an instrument of entertainment and communication for which no space will remain once they are in gainful employment and have established their own families.

But the findings do indicate a call for action if we assume that confident management of the various options the Internet offers plays a substantial role in a context with information, education and further training— and hence also with regard to professional life. It is important to place a greater emphasis on the increasing significance of the Internet as a means of positively structuring personal development in both professional terms and the organisation of everyday life. Schools in particular could focus more on helping their students acquire competent skills in the wide array of research and information functions and options the Internet has to offer. Communication of the Internet's future importance and relevance can foster social participation and promote equality of opportunities across all the different levels of education and the U25 Internet milieus that DIVSI has identified.

10.2 Education and sensitisation

In particular adolescents and young adults demonstrate relatively intricate risk awareness when it comes to the topic of dangers on the Internet. In this the adolescents focus mainly on personal injury such as bullying, insults or harassment and stalking. In contrast, young adults concentrate more on criminal attacks and violations of data security, including aspects relating to the infection of their personal computers with malware or spying on their data. Besides infection with malware, children frequently fear attacks in the offline world following disclosure of personal data on the Internet. Yet the perception of security remains trapped between vagueness and inconsistency, despite the relatively comprehensive protection against data violations in the form of software programs that young adults use in particular. For instance, this is expressed in the fact that although a majority of the adolescents and young adults interviewed believe their data have not yet been abused, they are unable to feel any certainty.

Further, a particular understanding of privacy in the online world can be ascertained within the younger generation. In this concept, adolescents and young adults in particular are less concerned with protecting their personal data in online communities such as Facebook as they are in safeguarding the content of their own online communication. For adolescents, privacy includes anything that might be intimate or potentially embarrassing. Young adults display a more pragmatic, but nevertheless extremely conscious, form of information management when it comes to disclosing and hand-

ling information about themselves and others. Here, privacy management is largely synonymous with reputation management within the network (of acquaintances) represented online.

But in addition to this newly aligned perception of privacy we find a certain mental overload or lack of understanding among children, adolescents and young adults for how to sensibly use and apply the existing security and privacy settings. For instance, although the risk of bullying in online communities is clearly perceived and experienced as even more unpleasant than in the offline world, the possible and existing security precautions, such as organising circles of friends and recipients in the lists intended for this purpose, are frequently disregarded. The interviewees are either unaware of these and other comparable methods of controlling one's own personal privacy – and of monitoring the effectiveness of the mechanisms used – or in an overall sense they appear too complex or laborious to warrant use. Moreover, the parents of almost half the children are exclusively the ones who deal with the security measures available.

The younger generation is also uncertain when it comes to cultural commodities on the Internet. It is now standard practice to listen to music, to watch films and to upload and download content online. A majority of the 9- to 24-year-olds are aware, and not indifferent, to the fact that these activities frequently inhabit a legal grey area or are indeed illegal actions. But this does not put an end to standard practice; instead it is legitimised by its own widespread use. The perception that all friends and acquaintances engage in these activities serves to strengthen a personal sense of security and, despite prevalent misgivings, to deliver adequate justification.

The uncertainties identified when it comes to personal behaviour on the Internet indicate a need for advice, education and sensitisation programmes. The multifarious perceptions and appreciations of security and privacy questions highlight the necessity of including the distinctions identified for specified milieus. In principle, it would be important to draw attention to, to plainly state the cases of, and to engage in further discussion on, the background to actual data dissemination and its risks, also on more advanced security measures available in Internet applications and online communities that the younger generation actually use.

The same would apply to the complex and constantly changing overall legal situation concerning the use of free content on the Internet.⁵⁴ Here also, it would be sensible to indicate the opportunities and risks based on the cases in which they most frequently apply.

There are also options for the operators of online platforms and services. It would be conceivable to optimise the comprehensibility of, and to provide communicative instruction on, how relevant it is to apply the various security and privacy settings.

⁵⁴ Heidrich 2013: Die Entwicklung des Urheberrechts im Jahr 2013 – Stillstand und Interessenpolitik. In: DAS NETZ, Jahresrückblick Netzpolitik 2013 – 2014, Berlin. p. 28 – 31.

10.3 The opportunities for developing competent institutions of trust

When it comes to Internet use, transitioning from childhood into adolescence, and from there into adulthood, also includes a delineation from previous institutions of trust such as the parental home and a shift in allegiances towards friends and members of one's own peer group. As the young people grow older their friends and their own self-confidence acquire greater importance when faced with manifold questions of use, while in a linear degression the council of parents and teachers progressively surrenders its relevance.

Relatively early on, the interviewees are keen to claim they possess greater Internet skills than their own parents. Already one third of 9- to 13-year-olds assume they know their way around the Internet better than their parents. At the same time the children feel a very strong sense of trust towards their own personal environment. Equally, though, there is a need among children, but also adolescents and young adults, to receive truly helpful advice from their parents and also from their teachers. But based on this study it is important to clearly state a prevalent misunderstanding: the interviewees are frequently unable to view their parents as advisors when it comes to options of use, and also in connection with the risks and dangers associated with navigating the Internet. Adolescents in particular experience discussions with their parents as unpleasantly focused on problems; they believe that, broadly speaking, the advice their parents provide is no more than wholesale and generally superficial admonishments to be cautious, lacking in any specificity. Information on the richly varied options the Internet provides are largely absent.

A similar deficit is clear in the relations between teachers and students at school. The interviewees believe that questions of everyday relevance, for instance concerning legal or illegal Internet activities and also general options for use in a broader sense, are reflected on inadequately in class. In consequence, personal trust, also with regard to questions of security relating to the Internet, withers away not merely because the adolescents and young adults are undergoing a process of reorientation, but also because the closer environment is unable to satisfy their needs and requirements in this respect.

The relevant dimensions of trust broaden substantially among young adults, prompting an increase in the perceived dependability of council received from friends, the use of protective software and intuitive faith. Trust in institutional bodies appears less relevant in this context. A comparison with the DIVSI U25 Internet milieus also reveals that when it comes to security measures on the Internet, a majority of adolescents and young adults rely mainly on themselves – their own intuition, content-based trust and social trust, which includes antivirus software, also play a significant role here.

Nevertheless the insecurities and uncertainties the interviewees feel in questions of Internet security prompt little action. Young people appear insouciantly willing to accept unresolved questions of how to manage the Internet. More still, their questions do not veer into mistrust or trust deficits that may prompt changes in personal behaviour.

Indeed, in terms of Internet use at least, trust does not in all cases present as an explicit call for action. Hence the intense, often daily use of the online community Facebook is juxtaposed with the restricted trust expressed towards this medium. So even if there is fragile trust in certain Internet offerings, the routines of use and their convenience are sufficient to mend or even overcome the fractured relationship.

The younger generation has come to terms with certain inconsistencies and uncertainties in questions of security and trust within the context of their daily Internet use. In many cases the trust in the protective function of a practice legitimised by general use carries greater weight than any mistrust of providers or applications brought about by uncertainty or mental overload.

Nevertheless, faced with the perceptions of risk and uncertainties identified, and despite the concomitant desire for autonomy of Internet use, there is a need for trustworthy contacts that exist within the framework of freedoms afforded. And if one assumes that, in an ultimate sense at least, Internet users will carry a large portion of responsibility for their behaviour in each situation⁵⁵, it is clear that for all the areas in which action can be taken, some of the parties involved are equally called upon to engage in crucial learning processes.

Firstly, educational facilities are in the position, and have the opportunity, to establish themselves as institutions of trust. Training both parents and teaching staff could equip them to assume greater responsibility and be taken seriously as serious advisors and trustworthy contacts for the younger generation.

There are also opportunities presented to public-sector agencies and platform providers themselves to develop and become established as institutions of trust.

But to ensure that the younger generation is addressed in a manner that appears promising, it is important to cast an eye over the widely diverse areas of use they engage in and to find practicable responses to the multifariously structured needs they possess.

⁵⁵ German Institute for Trust and Security on the Internet 2013: DIVSI Executive Study on Trust and Security on the Internet. p. 109

11. Appendix: Methodology and literature

11.1 The qualitative pilot study

The aim of the qualitative psychological survey was to establish the attitudes and the criteria that determine actions in online behaviour from the perspective of children, adolescents and young adults. Therefore, it was necessary to use methods that permit a comprehensive and profound analysis of the perceptive and experiential patterns while also providing a framework within which to record the needs, attitudes and motives.

Twelve non-directive focus group interviews with no more than eight participants were held in order to poll the broad variety of individual thematic areas. The interviewees were given sufficient space to express their opinions, perceptions and emotions in direct intercourse with the group and in their natural patterns of speech. Care was taken to ensure an even gender spread when inviting the participants. Additionally, the groups were divided according to age and media affinity (among 9- to 13-year-olds) and underlying lifeworld orientation, i.e. milieu background, among the 14- to 17-year-olds and the 18- to 24-year olds.

The overview on the following page presents the focus group compositions:

Location of study		Criterion 1	Criterion 2	Other criteria	Quotas
1	Potsdam	aged 9 to 10	Media-attuned	Internet use daily/several times per week	50/50 Gender
2	Potsdam	aged 9 to 10		Internet use once per week/less often	50/50 Gender
3	Potsdam	aged 11 to 13	Media-attuned	Internet use daily/several times per week	50/50 Gender
4	Potsdam	aged 11 to 13		Internet use once per week/less often	50/50 Gender
5	Berlin	aged 14 to 17	Modern base orientation, low formal education level	Materialistic Hedonists, Precarious	50/50 Gender
6	Berlin	aged 14 to 17	Modern base orientation, high formal education level	Socio-ecological	50/50 Gender
7	Berlin	aged 14 to 17	Postmodern base orientation	Expeditious, Experimentalist Hedonists	50/50 Gender
8	Berlin	aged 14 to 17	Traditional and Middle class base orientation	Conservative middle class, Adaptive Pragmatic	50/50 Gender
9	Hamburg	aged 18 to 24	Modern base orientation, low formal education level	Materialistic Hedonists, Precarious	50/50 Gender
10	Berlin	aged 18 to 24	Modern base orientation, high formal education level	Socio-ecological	50/50 Gender
11	Hamburg	aged 18 to 24	Postmodern base orientation,	Expeditious, Experimentalist Hedonists	50/50 Gender
12	Hamburg	aged 18 to 24	Young middle class: traditional and modern base orientation	Conservative Middle class, Adaptive Pragmatic	50/50 Gender

A catalogue of topics was introduced to ensure that all questions of relevance to research were also mentioned in the various focus groups and to enable deliberate guidance of the discussions towards thematic complexes that the interviewees themselves did not mention. The contents of the catalogue of topics are based on a review of the relevant research literature and on secondary evaluation or relevant data from the market-media studies *Typologie der Wünsche*⁵⁶ and *Verbraucher-Analyse*⁵⁷.

Specially trained employees at Sinus Institute and Erich Pommer Medieninstitut conducted the focus group interviews in Hamburg, Potsdam and Berlin in May 2013 and June 2013. The individual focus group interviews were recorded digitally, transcribed and then analysed in terms of content based on methods of hermeneutic text interpretation.

After one to two weeks all persons were invited to register on a platform specifically programmed for this purpose. Upon registration the participants created small personal profiles; over the course of the two-week online phase they answered daily questions on individual topics. Four moderated online chats took place between 3 and 18 June 2013. A conversation guideline was also developed for the online chats, thus ensuring that questions of relevance to the research would be covered. There was also space to specifically target individual aspects that previously had not been mentioned in the focus groups or in which contradictory insight had been delivered. In total 83 of the focus group participants also took part in the online chats.

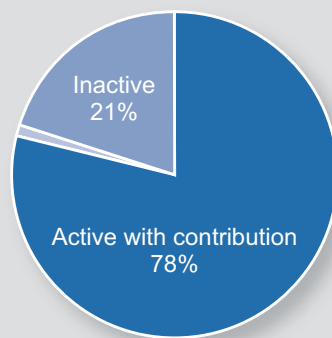
⁵⁶ *Typologie der Wünsche* 2012 by Institut für Medien- und Konsumentenforschung, Erding (N = 20,125)

⁵⁷ *VerbraucherAnalyse* 2012 by the Axel Springer and Bauer Media Group, Hamburg (N = 21,101)

Online portal user statistics

Period: Total field time (3-18 June 2013)

Participants:	83 total	17 inactive	66 active	65 active with contribution
Visits:	~ 445 total	Ø ~28 day	Ø ~7 visits per active participant	
Pages:	~ 7,050 total	Ø ~441 day	Ø ~16 pages accessed per visit	
Contributions:	~ 2,864 total	Ø ~179 day	Ø ~43 contributions per active participant	
Uploads:	~ 296 total	Ø ~18.5 day	Ø ~4.5 uploads per active participant	
Words:	~ 37,840 total	Ø ~2,365 day	Ø ~573 words per active participant	
Access:	69% standard	31% mobile		



Based on the qualitative-ethnological research methodology, the findings of the study are valid as defined by the relevance and typicity of their content, secured also by recruiting the interviewees using the SINUS lifeworld model, as this served to present all lifeworlds and hence all educational backgrounds.

11.2 The representative survey

The Ispos field institute conducted a nationwide, representative survey among the German-speaking, residential population in private households in Germany aged between 9 and 24 from the start of August to mid-September 2013. A population-representative quota sample was taken based on the ADM master sample and then collated with the official statistics after transformation into a personal sample by socio-demographic weighting. A total of 1,512 children, adolescents and young adults (unweighted case numbers/weighted: 1,500 cases) were interviewed within the framework of a computer-assisted personal interview (CAPI). 190 interviewers were used for the interviews. The average length of interview was 37 minutes.

The central thematic areas were operationalised in the associated questionnaire based on the insight from the prior qualitative study. In this some individual topics were expanded and enlarged on (e. g. online communities), while others were considered less relevant and less productive for answering the research questions.

Typification: Identification of the digital lifeworlds that adolescents and young adults inhabit

The first instrument to poll and describe digital lifeworlds in Germany was developed as part of the DIVSI Milieu Study. Given that it depicts the overall population aged over 14, it prompted the question as to how the digital lifeworlds of young persons aged under 14 could be polled in an adequate scope. The perceptive patterns and dimensions of attitudes acquired from 9- to 13-year-olds are characterised to a far greater extent by the social milieu of their parents. So a conscious decision was made to depart from classification according to the DIVSI Internet milieus.

Data evaluation

Once the field institute had delivered, analysed and weighted the interview data set, SINUS Institute proceeded to evaluation by means of bivariate and multivariate analysis methods. Drawing on cross-tabulation of questions with relevance to the research based on socio-demographic properties and the DIVSI Internet milieus, the bivariate level itself already revealed relevant group distinctions.

But in order to comprehend the underlying patterns of attitude it is insufficient simply to measure the approval ratings of the individual statements. This is why additional multivariate methods of data reduction were used. They are tools of subsumption that render visible the opinions or underlying attitudinal factors behind the individual statements and hence deliver explanatory patterns for behavioural traits. The statement batteries acquired from the results of the previous qualitative interview formed the starting point for requisite identification of dimensions of trust and security on the Internet. This permitted closer examination of three different thematic complexes among adolescents and young adults: the risks of online use, the security measures deployed and the identification of different concepts of trust.

To sensibly conduct this form of factor analysis it is necessary to review some assumptions concerning the underlying data material. First, the sample should originate from one available population in which the matching variables are correlated. Second, the scope in which the input variables form a set should be as large as possible, guaranteed both by means of assessing the correlation matrix as a whole and also the individual variables themselves. The factor analysis calculated here provides for both conditions. The following lists the three factor models calculated, along with their respective variance explanation.

- Risks on the Internet: 5-factor model with 49 per cent variance explanation
- Security measures: 4-factor model with 56 per cent variance explanation
- Trust concepts: 5-factor model with 50 per cent variance explanation

Explanation on the data presentation

Unless otherwise stated the values marked as above or below average refer to deviations from the respective total value of all interviewees. The respective values of the U25 Internet milieu serve as references in the detailed breakdowns, such as in statements on differences between the individual DIVSI U25 Internet milieus. Values that lie five per centage points above or below the reference value are marked accordingly as over- or under-represented. Deviations of three per centage points are already significant if the reference value lies at 20 per cent or less and are hence marked as above or below average, respectively.

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