



**URhulumente
weNtshona Koloni**

EzeMfundo

ICandelo le-eLearning

**ISIKHOKELO ESIMALUNGA NEESELULA NEZINYE IIDIVAYISI ZETHEKHNOLOJI EZIPHATHWAYO
(MOBILE TECHNOLOGIES) KWIZIKOLO ZIKARHULUMENTE, 2018**

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1. lingcaciso-magama

Kwesi sikhokelo naliphi na igama okanye ibinzana-gama elinikwe intsingiselo, linaloo ntsingiselo liyiniweyo, ngaphandle kokuba umxholo walatha okunye:

“ufikelelo” kuthetha ithuba okanye iindlela zokufumana ingcaciso;

“iiblogi” ii-webhublogu (iiblogu) zijenali zekhompyutha (*online journals*) ezenziwe ngabantu okanye ngamaqela athile ezigcinwa ku-intanethi. Kuqheleke ukuba ibe ziithekti, kodwa zinokubandakanya ezinye iindidi zeendlela zamajelo onxibelelwano afana nemifanekiso, neevidiyo nekhontenti yesandi (*sound content*);

“iibrawuza (browsers)” zizixhobo zokufikelela ku-intanethi;

“i-cloud computing” ligama elisetyenziselwa ukuchaza ukuhanjiswa kweenkonzo eziku-intanethi (*hosted services*) ezifana neenkonzo zeefasilithi yokuhambisa idatha ku-intanethi (*infrastructure*), isistim zokusebenza kwekhompyutha (*platform*) neenkonzo ze-*software* zisiwe kwezinye iidivayisi xa zifunekayo;

“ukubhulishwa ku-intanethi (cyberbullying)” kubhekisa kumonakalo wangabom nophinda-phindwayo owenziwa kusetyenziswa iikhompyutha, iiselula nezinye iidivayisi zethekhnoloji eziphathwayo (*mobile devices*) nezinye iidivayisi ezidijithali;

“ulwaphulo-mthetho kwiwebhu (cybercrime)” okanye ulwaphulo-mthetho kwikhompyutha ludidi lolwaphulo-mthetho apho kusetyenziswa u-intanethi okanye iikhompyutha njengesixhobo sokwaphula umthetho;

“ukhuseleko kwiwebhu (cybersecurity)” lukhuseleko ekusetyenzisweni kwekhompyutha oluquka ukhuselo lwengcaciso nepropati kubusela, kurhwaphilizo okanye kwintlekele yendalo lo gama kuvumelekile ukufikelela kwingcaciso nepropati yaye kunenzuzo kubasebenzisi abanaloo njongo;

“ukulandelelwa kweentshukumo zakho ku-intanethi (cyberstalking)” kuthetha ukuba abantu bathi gqolo “ukuchwechwa” belandelela okwenziwa ngabasebenzisi nengcaciso engabo ku-intanethi bengazi;

“ukubanako ukuvelisa nokubhala ingcaciso nokunxibelelana ku-intanethi (digital literacy)” kuthetha ukubanako ukufumana, ukuqonda, ukukhetha nokusebenzisa ingcaciso ekwikhompyutha ngokusebenzisa u-intanethi ngokufanelekileyo;

“i-digital footprint” kuthethwa ingqokelela yengcaciso engomntu othile ngezinto azenza ku-intanethi ezibandakanya imifanekiso, iividiyo netheksti, ezifakwe ku-intanethi nguye;

“Imfundo i-eEducation” iqulethe imfundo apho kusetyenziswa u-intanethi oko kukuthi i-eLearning, i-eTeaching, i-eAwareness nayo yonke imisebenzi yezolawulo enxulumene nezi nkqubo;

“i-eLearning” ligama elibanzi elibhekiselele kuko nakuphi na ukufunda okwenziwa ngekhompyutha, ngedivayisi yethekhnoloji ephathwayo nonxibelelwano lwe-intanethi. Lisetyenziswa ubukhulu becala ngabantu, ngamaziko emfundo nangamashishini. Imfundo i-eLearning iquka i-mLearning;

“isistim i-firewall” yinxenye yesistim yekhompyutha okanye yenethiwekhi yokuthintela ufikelelo olungagunyaziswa lo gama unxibelelwano oluvumelekileyo luvunyelwa;

“ukungena kwikhompyutha ungavunyelwanga (ukuhekha) (hacking)” kukufumana ufikelelo kwidivayisi yekhompyutha okanye kwisistim yekhompyutha – ngenjongo yokufun' ukwazi okanye kuba unomdla kodwa kungekuko ukubangela umonakalo – ngokusebenzisa iindlela zobuchule ezithile okanye iinkqubo ebezingenzelwanga ukukuvumela ungene. Umntu ongena engenamvume ongumhekhi (“hacker”) ke ngoko ingaba ngumntu othi “ngokungekhomthethweni afikelele kwidivayisi okanye kwikhompyutha yaye aphazamisane ngamanye amaxesha, nengcaciso ekwisistim” (Merriam Webster Online Dictionary);

“I-ICTs (Information and Communication Technologies)” zichazwa njengeendidi zeedivayisi/zeesistim zethekhnoloji (technologies) ezisetyenziselwa ukwenza, ukugcina, ukwabelana okanye ukuhambisa okanye ukutshintshiselana ngengcaciso; irediyo, ithivi, ividiyo, i-DVD, ifowuni (ezikwizakhiwo okanye iiselula), iisistim zesathelayithi, ikhompyutha, i-hardware ne-software network, kwakunye nezixhobo neenkonzo ezinxulumene nezi zinto zethekhnoloji ezifana nokusebenzisa ithekhnoloji ukuqhagamshelanisa abantu abaxoxa bebonana (video-conferencing) nembalelwano nge-imeyili (electronic mail);

“i-mLearning” ligama elibanzi ngokuqhelekileyo elibhekiselele kulo naluphi na udidi lokufunda olwenziwa kwidivayisi ephathwayo (*mobile device*) olufumaneka ngqo kwidivayisi njenge-aplikheyishini (*application*), igeyim (*game*) okanye ikhontenti efanayo; – okanye ekufikelelwe kuyo ngokusebenzisa u-intanethi. Lisetyenziswa ubukhulu becala ngabantu, ngamaziko emfundo nangamashishini;

“ifablethi (phablet)” yiselula eyi-smartphone eneskrini esinobukhulu obuphakathi kweselula eyi-smartphone nekhompyutha eyi-tablet computer;

“iselula eyi-smartphone” yiselula ephathwayo eyenza imisebenzi emininzi yekhompyutha, ngokuqhelekileyo ene-touchscreen interface, enaye no-intanethi ne-operating system enako ukusebenzisa i-apps ezikhutshelweyo;

“i-virtual reality” kukulinganiswa komfanekiso ongu-three-dimensional image okwenziwa yikhompyutha (computer-generated simulations) okanye indawo enokwenziwa ngokungathi yeyokwenyani okanye ebonakala inobunyani okanye nephathekayo (real or physical way) kumntu osebenzisa izixhobo ezikhethekileyo zekhompyutha (special electronic equipment) ezifana nehelmethi eneskrini ngaphakathi okanye iiglavu ezifakelwe iisensa (sensors);

“VR” sisishunqulelo sika-virtual reality;

“I-URL (Uniform Resource Locator)” yidilesi yewebhu echaza iziko lewebhu elithile umzekelo: <https://www.education.gov.za>;

“uluhlu olwamkelekileyo (i-white-list)” yilisti evunyiweyo; eqhele ukusetyenziswa ekuhluzeni ikhontenti ka-intanethi. I-white-list ibandakanya kuphela iidilesi (ezifana ne-URLs okanye i-imeyili) esele ziqinisekisiwe kwangaphambili ukuba zikhuselekile.

2. Isikhokelo semithetho esebenzayo

UMgaqo-siseko weRiphabliki yoMzantsi Afrika, 1996 (uMthetho 108 ka-1996)

<http://www.gov.za/sites/www.gov.za/files/Act108of1996s.pdf>

UMthetho weZikolo zaseMzantsi Afrika, 1996 (uMthetho 84 ka-1996)

https://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/documents/departments/education/schools_act.pdf

UMthetho wezeNgqesho yooTitshala, 1998 (uMthetho 76 ka-1998)

<https://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/documents/2004/10/a76-98.pdf>

UMthetho weMfundo weZikolo zePhondo leNtshona Koloni, 1997, (uMthetho 12 1997)

https://wcedonline.westerncape.gov.za/documents/legislative_acts/act12-97.pdf

Western Cape Government Guidelines on Social Media and School Networking in Public Schools, 2017

<http://www.hhhs.co.za/wp-content/uploads/2017/03/GUIDELINES-ON-SOCIAL-MEDIA-ANDSOCIAL-NETWORKING-IN-PUBLIC-SCHOOLS-2017.pdf>

Electronic Communications Act, 2005 (Act 36 of 2005)

<http://www.wipo.int/edocs/lexdocs/laws/en/za/za082en.pdf>

Films and Publications Act, 1996 (Act 65 of 1996)

https://www.saps.gov.za/resource_centre/acts/downloads/films_publications_act_child_pornography.pdf

Protection from Harassment Act, 2011 (Act 17 of 2011)

<http://www.justice.gov.za/legislation/acts/2011-017.pdf>

Criminal Procedure Act, 1977 (Act 51 of 1977)

<http://www.justice.gov.za/legislation/acts/1977-051.pdf>

Criminal Law (Sexual Offences and Related Matters) Amendment Act, 2007 (Act 32 of 2007),

<http://www.justice.gov.za/legislation/acts/2007-032.pdf>

Copyright Act, 1978 (Act 98 of 1978)

<http://www.gov.za/sites/www.gov.za/files/Act%2098%20of%201978.pdf>

Children's Act, 2005 (Act 38 of 2005)

<http://www.justice.gov.za/legislation/acts/2005-038%20childrensact.pdf>

Regulation of Interception of Communications and Provision of Communication-Related Information Act (RICA), 2002 (Act 70 of 2002)

http://www.saflii.org/za/legis/num_act/roicapocia2002943.pdf

Digital Wellness Programme – Resource and Concept, University of Pretoria, October 2015

http://www.up.ac.za/media/shared/609/ZP_Resources/Toolkit/october-2015-8-of-8-roadmap-for-campus-community-a5ss.zp95310.pdf

3. Injongo

Esi sikhokelo senzelve:

- (a) Abafundi, ootitshala, iiKomiti zoLawulo zeSikolo (*School Management Teams (SMTs)*) abazali nesikolo nendawo esingqongileyo, ukuba babe nolwazi ngamanye amathuba amahle anxulumene nokusetyenziswa kweeselula needivayisi eziphathwayo ii-*mobile devices*, kuqakwa:
 - (i) neenzuzo ezinokubakho neengozi ezinxulumene neeselula needivayisi eziphathwayo ii-*mobile devices*;
 - (ii) nokunika iingcebiso ngokusetyenziswa kweesistim zonxibelelwano ngekhompyutha (*online platforms*), indlela yokuziphatha kunxibelelwano ngekhompyutha (*online behaviour*) namajelo onxibelelwano phakathi kwabafundi, kootitshala, naphakathi kwabafundi nootitshala, kwakunye naphakathi komzali womfundi notitshala kwisikolo sikarhulumente kunye

- (b) Nokuncedisa izikolo zikarhulumente ekuqulunqeni eyazo imigaqo-nkqubo ukwenzela ukulawulwa kokusetyenziswa kweeselula needivayisi eziphathwayo kwezi zikolo.
- (c) Ukwenzela ukuba umgaqo-nkqubo weeselula kunye needivayisi eziphathwayo usetyenziswe ngokuyimpumelelo ezikolweni, kumele ube ngonxibeleleneyo ngokungenakwahluleka neminye imigaqo-nkqubo yesikolo. Umele ukufundwa kunye nemigaqo-nkqubo yesikolo sona ngokwaso eyile:
- UMgaqo woKuziphatha
 - UMgaqo-nkqubo woSetyenziso oLwamkelekileyo (*Acceptable Use Policy (AUP)*) wooTitshala
 - UMgaqo-nkqubo woSetyenziso oLwamkelekileyo (*Acceptable Use Policy (AUP)*) waBafundi
 - UMgaqo-nkqubo i-ICT (*Information and Communication Technologies policy*)

4. Umhlaba oza kufikelelwa

Esi sikhokelo sisebenza kubo bonke abafundi nootitshala kwizikolo zikarhulumente eNtshona Koloni.

Esi sikhokelo sibandakanya ukusetyenziswa kwazo zonke iidivayisi eziphathwa ngesandla kunye/okanye iidivayisi ii-smart devices:

- liselula
- lithablethi
- lifablethi (*Phablets*)
- likhompuyutha ezinokunxitywa ezifana nee-smartwatches, iidisplayi ezinxitywa entloko (*head-mounted displays*) (ii-VR headsets)
- llephutophu
- limidiyapleya eziphathwayo (*portable media players*)

5. Intshayelelo

Ukwanda okuthe gqolo kokusetyenziswa kwethekhnoloji kuluntu kubangele ukuba kubekho ufikelelo olulula, olukhawulezayo nolungabizi mali ingako kwi-*Information and Communication Technologies (ICT)* yaye oko kuyenzeka ngokwenyani eNtshona Koloni ngokwephulo le*Western Cape Broadband Initiative (WCBBI)* evumela abafundi ukuba babe no-intanethi.

Ukutyhutyha ngokukhawulezayo kweeselula needivayisi eziphathwayo (*mobile devices*) kusoloko kubhengezwa njengenyathelo elingalunganga nangona iiselula needivayisi eziphathwayo zifikelela kwiindawo ezininzi, nkqu nakwiindawo ezizezona zingamaphandle.

Izinto ezilungileyo ngokusetyenziswa kweselula needivayisi eziphathwayo kwezemfundo zibaluleke ngaphezu kwezinto ezingalunganga, nakuba kunjalo oku kufuneka kulawulwe ngendlela enengqiqo nefanelekileyo ukwenzela ukuba kuqinisekисwe ukhuseleko lwabantwana bethu. Kubalulekile ukuba izikolo zibe nolwazi ngokuba zilawulwa njani na iiselula needivayisi eziphathwayo ukwenzela ukuba abafundi bazo babe namava anika ithemba yaye bakhuseleke xa besebenzisa ezi divayisi. Abafundi kufuneka baziqonde ukuba iziphumo zokusetyenziswa gwenxa kwazo yaye bamele ukuphendula ngendlela abaziphethe ngayo. Kukwabalulekile nokuba abazali nabagcini babafundi babelane ngolu xanduva, njengoko ufikelelo kwithekhnoloji lungaphelanga esikolweni okanye kwixesha elichithwe esikolweni nakwindawo esikuyo isikolo.

ISebe leMfundo leNtshona Koloni (ISebe iWCED) liyaphendula ngokumalunga noku yaye libanika ithemba bonke abathathi-nxaxheba (ii-SMTs, ootitshala, abafundi nabazali/nabagcini babafundi) ngesi sikhokelo ukuqinisekisa ukuba bakuxhotyiselwe ukulawula iingozi nezinto eziyinzuzo zoku.

6. Izinto ezilungileyo ngokusetyenziswa kweeselula needivayisi eziphathwayo esikolweni nakwindawo esikuyo

6.1 Ngokwemeko-bume yaseMzantsi Afrika, ikhonsepthe ye-e*Education* ijikeleze ukusetyenziswa kwe-*ICT* ukukhawulezisa ukufezekiswa kweenjongo zemfundo zikazwelonke (*national education goals*) nokulungiselela abafundi kwinkulungwane yama-21. Ukwenzela ukufikelela kwezi ziphumo, kuya kubanenzuzo ukuvumela abafundi bafikelele kwiiselula nakwiidivayisi eziphathwayo kwindawo yokufunda

abakuyo njengoko kukwakho nezinto ezingalunga ezininzi ekuzez

- (a) Zenza kubekho unxibelelwano olukhawulezileyo yaye zisebenza njengesixhobo sokusebenzisana eklasini (*classroom collaboration tool*), sokudibanisa abafundi nabanye abafundi nootitshala neenkonzo zenkxaso ezinxulumene nalo msebenzi wokufundisa;
- (b) linowuthsi ezikhawulezayo (ezelizwi, ividiyo okanye imifanekiso) njengesixhobo esincedisa ekufundeni okanye isixhobo esikuncedisa ukhumbule okufundiweyo;

- (c) Ikhhalenda yokucwangcisa umsebenzi ongumthwalo womfundi notitshala, isixhobo somsebenzi wesikolo wasekhaya, nesokucwangcisa amaxesha e-asayinimenti nawemisebenzi eyenziwa emva kweyokufundisa;
- (d) Isixhobo sengcaciso – esivumela ukufikelela ngokulula nangokukhawuleza kwingcaciso, nakwizibonelelo nezixhobo kwakunye nakwinkxaso kwikharithulam, ukwenzela ukuba abafundi babe namava okufunda kwindawo ekhuselekileyo;
- (e) Unxibelelwano lweGateway ukuya kwinethiwekhi ekugcinwa kuyo idatha (*gateway to cloud computing*) – luvumela abasebenzisi ukuba bafikelele yaye bafake iifayili nengcaciso kwiindawo zokugcina idatha kwinethiwekhi (*cloud storage space*)
- (f) Isixhobo sokufikelela nokusebenzisa ii-aplikheyishini (*applications (apps)*) ezifana nezi-calculator, translator, polling/voting, audio recorder, camera, video recorder, educational apps, nee-apps ezifundisa okuthile kwizifundo nezifundo, njl.njl.
- (g) Ukwabelana ngengcaciso nabanye, okufana nokubonisa abazali iiprojekthi zabafundi beklasi, ukuthumela ii-asayinimenti ezingenziwanga kubafundi beklasi abangekhoyo esikolweni, ukufaka nokukhuphela izibonelelo zokufunda (*educational resources*);
- (h) Ukwabelana ngedatha/ngengcaciso egcinwe kwi-Cloud/kwi-drive okufana nokukhuphela iifayili, ukwabelana ngeefayili nabanye abasebenzisi ukwenzela iinjongo zezemfundo nangokumalunga nobuchule kwizifundo ezifundwayo;
- (i) Uhlanganiso lwe-App/lwe-software ukomeleza iziphumo zobuchule bomntu ekwenzeni okuthile;
- (j) Ziza neendlela zokufunda ezahlukileyo – zivumele utitshala asebenzise zonke iindlela zokufundisa yaye ayoyise nemiqobo ekhoyo ekufundeni;
- (k) Zikhuthaza ukuba namava ento oyibona isenzeka kwiisistim zonxibelelwano ku-intanethi (*digital platform*) ukuphucula ubuchule bokucinga;
- (l) Umsebenzi wesikolo wasekhaya ongabhalwayo (*Paperless homework*) – oku kunceda ekukhuseleni indalo yaye komeleza ukubanako ukufikelela kwabafundi nokuzisebenzisa ezi zixhobo ngokuyimpumelelo;
- (m) Iimvavanyo ezilula ezenziwa ngezi zixhobo ngokuzenzekelayo (*easy automated assessments*) nenkcazo ngokuqhubekekayo;
- (n) Ukwenziwa komsebenzi ube ziinkqutyana zeegeyim (*gamification*), kusetyenziswa indlela enobuchule eqalisa izinto ezintsha ukulungiselela uvavanyo nokuthatha inxaxheba kwabafundi;
- (o) Isixhobo sonxibelelwano phakathi kootitshala, abafundi, isikolo nabazali.

6.2 Ootitshala nabafundi mabathathele ingqalelo oku kulandelayo xa besebenzisa iiselula needivayisi eziphathwayo:

- (a) Iiselula needivayisi eziphathwayo kumele zilawulwe ngendlela efanelekileyo kwezemfundo njengoko zinokuba zeziphazamisayo ngenxa yokuba kusoloko kuhanjwa nazo.
- (b) Mayiqondwe into yokuba oko kunokuchaphazela ngokungalingana ukuzithemba kootitshala nabafundi ngokufumaneka ngokulula kwekhontenti yemifanekiso yamanyala (*availability of pornographic content*), iikhamera zeeselula, ifasilithi yokurekhoda, ukuthumela imiyalezo ehlukekileyo okanye eyoyikisayo nokufikelela ku-intanethi;
- (c) Iikhamera zeeselula (zemifanekiso engashukumayo (*still*) neyevidiyo mazingasetyenziswa:
 - (i) kwiindawo ezingavumelekanga kuzo, umzekelo kumagumbi okutshintshela abadlali, ezithoyilethi, ezijimini nakumadami okuqubha;
 - (ii) ukufota abantu nemisebenzi yabo ngaphandle kolwazi lwemvume.
- (d) Umgao-nkqubo oyi-Acceptable Use Policy (AUP) esikolweni umele ukuyicacisa ngqo into yokuba kwamkeleka nini nanjani na ukusetyenziswa kweeselula needivayisi eziphathwayo esikolweni yaye mazibe namanyathelo asetyenziswayo ukuqinisekisa ukuthotyelwa kwawo. Oku kubandakanya ukuthunyelwa nokufumana iikholi eziya/ezivela kubazali/kubagcini babafundi.
- (e) Kucetyiswa ukuba i-AUP ikhankanywe kumgaqo wokuziphatha.
- (f) Abafundi abaphethe iselula banokuthagethwa ngamasela; ngoko ke ukuba nolwazi malunga nokhuseleko endleleni eya nebuya esikolweni ngumba obalulekileyo ongundoqo.
- (g) Abafundi mabakusebenzise ukuba bodwa bucala nokuba bayiqwalasele ngobulumko indawo ebangqongileyo njengoko iiselula needivayisi eziphathwayo zinemifanekiso yabo buqu, imiyalezo nembalelwano ye-imeyili inako ukugqithiselwa kwabanye abasebenzisi kunye/okanye ukufakwa kumaqonga onxibelelwano ngekhompyutha ekufikelela wonke umntu kuwo.
- (h) Bonke abasebenzisi mabangazifaki engozini ngokwabelana nabanye abantu bafake imifanekiso okanye imiyalezo engafanelekanga njengoko imiyalezo ishiya ingcaciso engomntu othile ku-intanethi ngokusebenzisa kwakhe u-intanethi (*digital footprint*) nenokonakalisa udumo lwakho kamva kubomi bexesha elizayo.

7. Imisebenzi eluxanduva neemfanelo

7.1 Izikolo zikarhulumente kuya kufuneka:

- (a) ziqulunge yaye zipapashe umgaqo-nkqubo ongosetyenziso lweeselula needivayisi eziphathwayo noquka amagalelo abo bonke abachaphazelekayo (iKomiti yoLawulo yeSikolo (SMT), ibhunga lolawulo, abazali, ootitshala nabafundi); yaye
- (b) zibe neesemina zarhoqo zokusetyenziswa ngendlela ephucukileyo neyamkelekileyo konxibelelwano ku-intanethi lo gama ziqwalasela yonke imiba eyinkxalabo emalunga nokusetyenziswa kweeselula needivayisi eziphathwayo ebandakanya:
 - (i) Ukubhulishwa kunxibelelwano ngo-intanethi
 - (ii) Uxanduva lwamajelo onxibelelwano
 - (iii) Ukuprinta okuyingcaciso eyidatha engomntu othile osebenzisa u-intanethi (*Digital foot printing*)
 - (iv) Ukuba ngumsebenzisi ka-intanethi rhoqo noxanduva loko
 - (v) Izixhobo zokhuseleko eziqhelekileyo kunxibelelwano nosetyenziso luka-intanethi neengcebiso ngazo
- (c) ukhuseleko lokuboniswa ku-intanethi neephowusta ezidijithali zokuthwala uxanduva ngezenzo zakho ezimalunga nazo zonke iinkalo zezolonwabo eklasini;
- (d) ootitshala nabafundi mabasayine i-AUP engokusetyenziswa kweeselula needivayisi eziphathwayo esikolweni nakwindawo esikuyo;
- (e) zenze abafundi nootitshala bakuqonde ukuziphatha ngokufanelekileyo nokuluxanduxa lwabo kwimisebenzi yokusebenzisa u-intanethi; nokuba
- (f) babafundise abafundi ukuba bonke abasebenzisi banalo ilungelo lokuba bodwa bucala ngendlela eyamkelekileyo yaye ke ngoko lulwaphulo-mthetho ukuzama ukufumana iifayili neefoto zabanye abafundi okanye ootitshala
- (g) iiselula needivayisi eziphathwayo zinokusetyenziswa kuphela eklasini ngenjongo yokufunda nangokomyalelo katitshala yaye mazibandakanywe ngokufanelekileyo kwiiprogram zokufunda;
- (h) ukwazisa abafundi nabazali ukuba luxanduva lwabo ukuphathwa ngokhuseleko kweeselula needivayisi eziphathwayo yaye beza nazo esikolweni ngokuzithandela yaye abayi kubeka tyala mntwini.
- (i) ukuthatha amanyathelo afanelekileyo ngakuye nawuphi na umfundi:
 - (i) ofota okanye enze ifilim umzekelo yomlo kumasango esikolo kunye/okanye abanye abantu ngaphandle kwemvume yabo;

- (ii) othumela imiyalezo ehlukumezayo neyoyikisayo;
 - (iii) ofunyenwe enayo, ejonga kunye/okanye ejikelezisa nayiphi na ikhontenti engamkelekanga efana nemifanekiso yamanyala (*pornography*), ikhontenti ehlukumezayo neyeyeminyaka eqingqiweyo;
 - (iv) obhaqwe esebenzisa iselula okanye idivayisi ephathwayo kwiimviwo okanye kwiimvavanyo;
 - (v) uzama ngabom ukufikelela kumaziko ewebhu ngokungena engafanelekanga ngokusebenzisa 'iindlela zokuhekha' (*'hacking methods'*) nokungena engazinanzi iisistim zokhuseleko (*break through the firewalls*) ezimiselweyo ngokwemigangatho yokhuseleko karhulumente okanye yesikolo.
- (j) Kuluxanduva lwesikolo ukuqinisekisa ukuba abazali, ootitshala nabafundi banolwazi oluninzi ngomgaqo-nkqubo weselula needivayisi eziphathwayo wesikolo yaye bayakuqonda kakuhle okuziziphumo zoku;
- (k) Ukusetyenziswa kweedivayisi eziphathwa ngesandla, nezo zinxitywayo ngethuba leemviwo;

Izikolo zinokwenza isigqibo sokuba zikuthathela ingqalelo ukuthintelwa kweedivayisi eziphathwayo, iidivayisi ezinxitywayo (oko kukuthi i-smartwatches) ngethuba leemviwo ukuqinisekisa ukusulungeka kweemviwo.

7.2 Utitshala umele:

- (a) ukuxoxa ngokusetyenziswa kweeselula needivayisi eziphathwayo eklasini nokubekwa kwemiqathango emalunga nokusetyenziswa kweeselula needivayisi eziphathwayo;
- (b) ukuxoxa ngeemfundiso ezisisiseko malunga nokuhlonitshwa kwepropati, iziphumo zokuthatha nokwabelana ngengcaciso nekhontenti ngokungafanelekanga;
- (c) ukufundisa abafundi ngemifanekiso abayenza ku-intanethi besebenzisa iiselula needivayisi eziphathwayo zabo ngokusulungekileyo nokuba kukho iziphumo kumanyathelo abawathathayo;
- (d) ukucacisela abafundi ukuba ziya kusetyenziswa njani na iiselula needivayisi eziphathwayo njengenxalenye yokufunda nokufundisa, umzekelo,:
 - (i) Ukufota iifoto ezisetyenziswa kwiiprojekthi (zezityalo, izilwanyana, amatheko nezinto ezenziwa sisikolo, njalo-njalo.)
 - (ii) Ukurekhoda iividiyo ezinokusetyenziswa kwiiprojekthi okanye ukwenzela iinowuthsi eziza kusetyenziselwa ukufunda kamva (kwii-ekhsperimenti, kwiingxoxwana ngomba othile, kwidrama okanye kubugcisa bokubonwayo nokwenziwayo , njalo-njalo.)

- (iii) Ukwenza iividiyo ezizezabo ezinokujongwa yaye zihlolwe ngutitshala okanye ukwenzela umsebenzi wokuvavanya abanye abafundi njalo-njalo.
- (iv) Ukwenza iirekhodingi zesandi (*audio recordings*) zodliwano-ndlebe lomlomo, zokujongisiswa kweencwadi nodliwano-ndlebe njalo-njalo.
- (e) ukuxoxa ngomahluko wokuvumela ukufikelela ku-intanethi kwinethiwekhi yesikolo nokutshintshela kwidatha eyeyakho ukungena ku-intanethi nokuba oku kuvunyelwe kuphela kwimvumelwano katitshala ngethuba lokufundisa lokuba seklasini;
- (f) ukuba nemigaqo yeklasini nendlela yokuziphatha malunga neeselula needivayisi eziphathwayo eklasini efana:
 - (i) Nokubeka iiselula needivayisi eziphathwayo phezu kwedesika.
 - (ii) Ukucima iselula ingabi nesandi
 - (iii) Ukungaziphenduli iikholi ngethuba lesifundo.
 - (iv) Ukuzingathumeli i-SMS/IM ngethuba lesifundo.
 - (v) Ukungathathi nxaxheba kwabo kumaqonga amajelo onxibelelwano ngethuba lesifundo.
 - (vi) Ukuzisebenzisa kuphela idivayisi kulo misebenzi kugqitywe ngayo ngutitshala kweso sifundo.
 - (vii) Ukuyikhathalela iselula yakho ngokwakho.
- (g) ukulandelwa kwalo migaqo ifanayo naleyo yenziwe kunye nabafundi.

7.3 Abafundi:

- (a) bamele ukusebenzisa iiselula needivayisi eziphathwayo kuphela xa ukusetyenziswa kwazo kungayi kuphazamisana nenkqubo yesikolo okanye eqhelekileyo okanye ngokomyalelo katitshala;
- (b) bamele ukubonisa imbeko, ukukwazi ukubacingela abanye nentlonipho xa besebenzisa iiselula zabo; yaye
- (c) bamele ukuqonda ukuba kuya kuthathwa amanyathelo ukuba benza oku kulandelayo:
 - (i) Bafota okanye benza ifilim umzekelo yomlo kumasango esikolo kunye/okanye yabanye abantu ngaphandle kwemvume yabo;
 - (ii) Bathumela imiyalezo ehlukumezayo neyoyikisayo.

- (iii) Banayo kubo okanye bajonga okanye bajikelezisa nayiphi na ikhontenti engamkelekanga efana nemifanekiso yamanyala (*pornography*), ikhontenti ehlukumezayo neyeyeminyaka eqingqiweyo.
- (iv) Babhaqwe besebenzisa iselula okanye idivayisi ephathwayo kwiimviwo okanye kwiimvavanyo; bezama ngabom ukufikelela kumaziko ewebhu angalunganga ngokusebenzisa “iindlela zokungena bengavunyelwanga (“zokuhekha (*hacking methods*”)) yaye bengena ngokugwenxa kwii-app ezizi-*firewalls* ezimiselweyo neziyimigangatho yokhuseleko ku-intanethi zikarhulumente okanye zesikolo.
- (d) banokusebenzisa kuphela iiselula needivayisi eziphathwayo eklasini ngenjongo yezemfundo ngokomyalelo katiitshala nezimabandakanywe ngokufanelekileyo kwiiprogram zokufunda;
- (e) abanakusebenzisa iiselula needivayisi eziphathwayo ngenjongo yolonwabo, ezifana nokubukela iimuvi okanye ikhontenti yesandi neyevidiyo ethunyelwa ibukelwe ku-intanethi (*streaming entertainment content*) (oko kukuthi iimuvi, inkqubo ze-TV, iividiyo zomculo nomculo);
- (f) abanakusebenzisa iiselula needivayisi eziphathwayo ukukhuphela ikhontenti yolonwabo engenanto yokwenza nezifundo;
- (g) banokuba nazo izinto ezisetyenziswa nazo (*accessories*) ezifana nee-*earphones* eklasini ngokomyalelo katiitshala okanye ngethuba elingelilo elokufunda eklasini (oko kukuthi abanako ukumamela umculo, irediyo okanye nayiphi na inkqubo esasazwayo ngaphandle kwee-*earphones* kwiipaseji, kumabala okudlalela njalo.njalo.);
- (h) mababe noxanduva lokukhusela iiselula zabo yaye isikolo esinakuthwaliswa uxanduva lokuphendula ngobusela, ngomonakalo okanye ngokulahleka kwazo;
- (i) bamele ukucetyiswa ngokusebenzisa iiselula needivayisi eziphathwayo ngendlela enentlonipho neqhutywa ziimfundiso ezisisiseko ezikolweni yaye baqonde kakuhle ukuba oko sisibonelelo yaye akulolungelo labo; yaye
- (j) bamele ukukuthintela ukubandakanyeka kwizenzo eziyingozi nezingekhomthethweni okanye iindlela zokuziphatha ezifana nobusela ukubhulisha, ukuthenga nokuthengisa iiselula ezibiweyo, ukupapasha ingcaciso engeyiyo (*compromising information*) enokonzakalisa omnye umntu.

8. Izinto ezingalunganga ngokusetyenziswa kweeselula needivayisi eziphathwayo esikolweni nakwindawo esikuyo

8.1 Ukubanako kweeselula needivayisi eziphathwayo ukurekhoda (isandi, imifanekiso, iividiyo) kunokusetyenziswa gwenxa ngokwenza oku:

- (a) ukurekhoda abantu bengazi
- (b) ukurekhoda nokwabelana ngendlela yokuziphatha engalunganga;
- (c) ukusebenzisa iselula okanye idivayisi ephathwayo kwisenzo esingekhomthethweni, esifana nokwaphula umthetho;
- (d) ukusebenzisa iselula okanye idivayisi ephathwayo ukukopa kuviwo okanye kuvavanyo; kunye
- (e) nokusebenzisa iselula okanye idivayisi ephathwayo ukwenzela iinjongo ezingezizo ezemfundo ngethuba lokufunda eklasini kunokuphazamisa.

8.2. Izinto ezingalunganga ngokusebenzisa iikhompyutha ezinokunxitywa (*wearable computers*) (o.k.t. ii-smart watches):

- (i) Isikrini se-smart watch sincinane kakhulu ukwenzela ukuba sibe nokusetyenziselwa iinjongo zokufunda.
- (ii) Ulungelwano kwifankshini yokwabelana ngedatha kweeselula needivayisi zethekhnoloji (*Bluetooth compatibility*) lwenza kube lula ukufikelela ku-intanethi, yaye ngoko ke lunokusetyenziswa njengesixhobo sokukopa.

Izikolo zimele ukukuqwalasela kwakhona ukuvumela abafundi beze nee-smartwatches esikolweni njengoko kungeyomfuneko ukusetyenziswa kwazo kwiinjongo zokufunda yaye oko kunokubangela ukuba kubekho eminye imiba eyinkxalabo.

9. Ukujongisiswa kwesikhokelo

Esi sikhokelo masijongisiswe xa kukho imfuneko yoko okanye xa zitshintshile iimeko kubandakanywa notshintsho kwimithetho kunye/okanye kwimimiselo kwakunye neemeko zebhajethi.

Izikolo kufuneka zenze isigqibo ngezohlwayo zazo kwimeko yokungaphathwa ngendlela, ubusela nokusetyenziswa gwenxa kwezi divayisi.