STANFORDINSTITUTEFORTHEQUANTITATIVE STUDYOFSOCIETY

INTERNETANDSOCIETY

APRELIMINARYREPORT

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I. SurveyObjectives Methodology KeyFindings InternetandSociety

-APRELIMINARYREPORT-

OBJECTIVES

Overthelastfiveyears, therevolution in formation technology (IT) has resulted in innovations that are having increasingly visible effects on the life of the average American. These developments affect not only how people work, but where they work, how much they work, or with whom they interact face to face or electronically. Will future work ers continue to share physical proximity with the ir colleagues, or work largely alone wedded to digital devices with occasional electronic mailor voice communication? What will the sechanges mean for social trust and social life beyond the family? Will the growing trend of working at home with the aid of IT helps trengthen the family or add to the intrusion of the work place into the home? Will it reduce the hours people work, or increase them by infusing work into every sphere of life, devouring leisure-time and family-life? And how will the Internet affect the role and use of the tradition almedia?

ThesesameIT innovations are revolutionizing information and entertainment delivery, affecting their production and consumption, transforming our social life and behavior, even our political institutions and the role of citizens within them. So meargue that the new technology of e-mail, on-line discussions, on-demand information, and web-powered information diffusion and interest aggregation will lead to a more informed, engaged, and influential mass public. Will we live in a better informed and connected, more engaged and participatory society-orina society of lonely ex-couch potatoes glued to computer screens, whose human contacts are largely impersonal and whose political beliefs are easily manipulated, relying on the iconsofa wired or wire less society?

Thehumanmeaningofthesechangesremainsunclearatpresent.Somegreetthese developmentswitheuphoria,otherswarnofdireconsequences. Thetruthislikelytobe somewhereinthemiddle:Someofthesocial/politicalchangeswillbeliberating,somewillhave littlesocialeffect,butothersmaybeharmfulorevensociallyandpoliticallyexplosive;some mayevenbeperverse--andthemostcriticalonesmaywellbeunanticipatedbyeveryone.For answerstothesequestions,wemustmovefromideologicalclaimstoempiricalevidence.Our studyisanattempttodojustthat.

METHODOLOGY(Datacollectedby InterSurvey)

Thestudyisbasedondatacollectedusingarevolutionarynewmethodologydevelopedby *Inter-Survey*toconductsurveysovertheInternet.UnlikesurveysofInternetusersorhouseholds, whichsufferobvioussampledistortionsandprecludegeneralizingresults,thisnewsurvey methodologyisbasedonapanelofhouseholdsrecruitedasagenuinerandomtelephonesample oftheU.S.population.InordertousetheInternetforthepurposeofefficientmulti-channeldata collection,eachhouseholdinthesample-withorwithoutpriorInternetconnection-isequipped witha *WebTV* settopbox,withfreeInternetaccessande-mailaccounts.

ThedataforthestudywerecollectedinDecember1999, from anational random sample of 4113individualsin2689 panelhouseholds, as a baseline for a continuing research program. Question-naireswerecompleted independently by each member of a panelhousehold using their televisionand their WebTV control stoans werthe questions displayed on the screen.To avoid contamina-tion of results due to the fact that the study was itself conducted over the Internet (all samplehouse holds have Internet access, as a result having been equipped withWebTV), the results onInternet use presented in this study are based ONLY on the responses of participants whohad Internet access(athome or elsewhere)prior to and independent of theWebTV accessinstalled byInterSurvey. The margin of sampling error is about±1.5% for results from thecomplete survey, and about±2.5% for the subset of Internet users.

RELEASENOTE:

TheStanfordInstitutefortheQuantitativeStudyofSociety(SIQSS)wantedtobringthesestudy findingstopublicattentioninatimelymanner, eventhough the analysis is preliminary and on-going. Given the speed at which the Internet is changing, and the length of the peer-review process, these data would be of analytical and historical interest, rather than current interest, if we waited for a cademic journal publication. It is for these reasons that we are presenting the results in their current form.

KEYFINDINGS

<u>InternetAccessintheUnitedStates</u> (See<u>Chart1&2</u>) (Chartsareattheend of the section.)

HouseholdcomputersandInternetaccess

- 65% of Americanhouseholds have at least one computer (of that, 19% report a multicomputer household)
- 43% of Americanhouseholds are connected to the Internet

IndividualInternetaccess

- 38% of Americansover 18 access the Internet athome,
- 34% access the Internet elsewhere (17% exclusively, 17% in both places);
- Thus,55% of the population currently have access to the Internet.

WhatdousersdoontheInternet ? (SeeChart3)

Weaskedeachofour4000respondentstoselectamongalistof17common	internet activities and tell us which they
didordidnotdo.Thisiswhatwefound:	

- *E-mailisbyfarthemostcommonInternetactivity* ,with90% of all Internetusers claiming tobee-mailers.
- Forthemostpart, *theInternettodayisagiantpubliclibrarywithadecidedlycommercial tilt*. Themostwidespreaduseofthe internettodayisasaninformationsearchutilityfor products, travel, hobbies, and general information. Virtually all users interviewed responded that they engaged in one or more of the seinformation gathering activities.
- AlittleoverathirdofallInternetusersreportusingthewebtoengageinentertainmentsuch ascomputergames(suchasonlinechess,rolegames,andthelike). Thus, *thecurrent Internetisalsoemergingasanentertainmentutility.*
- **Chatroomsarefortheyoungandtheanonymous.** Whileaquarterof internetusersclaim tohaveusedchatrooms,thisactivitysubstantiallydecreasesafterage25.Andthechatters reportthattheoverwhelmingportionoftheir *chatroom interactioniswithanonymous otherswhoseidentitiesremainunknown*.
- **ConsumertoBusinesstransactionalactivity** --purchasing,stocktrading,onlineauctions, ande-banking--areengagedinbymuchsmallerfractionsofInternetusers,withjustmore thanathirdreportingtheymakepurchasesonlineandunderfifteenpercentdoinganyofthe othertransactionalactivities. *Despiteallofthesoundandfury,businesstoconsumer commercialonlinetransactionsarebutintheirearlieststages*

HowmanydifferentactivitiesdoInternetusersengagein? (SeeChart4)

• Buildingfromthedatainchart4, we find that the average Internet user reports engaging in 7.2 different types of activities. While there is probably some double accounting due to our attempt to be comprehensive in our list activities, *the average user is engaging in at least 5 distinct types of activities on the Web: accombination of different types of information searches, entertainment and games, and for one quarter, some commercial transactional activity.*

Lengthofusecorrelateswithamountofuse. (SeeChart5)

• TheInternethasbeenaroundforaboutfiveyearsnow, and the longer people have been web users the more hours and the more activities they reporteng aging in. While self-selection may be playing arole with early adopters, the data in Chart, along with the generational data presented here and in the pressere lease, strongly suggest *amodelof social change with not only agrowing number of Internet users, but with we busers do ing more and more things on the internet in the future*.

Themoretimepeoplespendusingthe Internet...

- ... themoretheylosecontactwiththeirsocialenvironment. <u>(SeeChart6)</u> Thiseffectisnoticeableevenwithjust2-5Internethours/week,anditrisessubstantiallyfor thosespendingmorethat10hours/week,of whomupto15percentreportadecreasein socialactivities. EvenmorestrikingisthefactthatInternetusersspendmuchlesstimeof talkingonthephonetofriendsandfamily:thepercentagereportingadecreaseexceeds25 percent-althoughitisuncleartowhatextentthisrepresentsashifttoe-mailevenin communicatingwithfriendsandfamily,oratechnicalbottleneckduetoasinglephoneline beingpreemptedbyInternetuse.
- ... themoretheyturntheirbackonthetraditionalmedia. (<u>SeeChart7</u>) ThiseffectincreasesproportionallywithhoursofInternetuse:foreveryadditionalhouron theNet,peoplereportfurtherdecreasesintimespentwithtraditionalmedia,reaching65 percentforthosespendingmorethan10hoursaweekontheNet.Clearlythemediaare competingwiththeInternetfortime,especiallyinthecaseoftelevisionwhereevenwithas littleastwohours/weekontheNet,aquarterofInternet usersreportdecreasesinTV viewing - *youcan'tsurfthewebandwatchTV atthesametime* .Fornewspapers,thesame effectislessdramaticandmayalsoreflectthefactthatpeoplecouldsubstitutereadingthe newsonthewebforreadingthepaper.
- ... themoretimetheyspendworkingathome-andattheoffice. (SeeChart8) Evenwithlessthan5hours/weekofInternetuse,about15percentoffull-timeorpart-time workersreportanincreaseintimespentworkingathome.AndastheiramountofInternet userisesabove5hours/week,agrowingnumber-uptoanadditional12percent-even reportspendingmoretimeworkingattheoffice,aswellasathome.ForheavyInternetusers withregularjobs,asubstantialportionoftheirtotalInternetuseislikelytotakeplaceatthe officetobeginwith-anditseemstobekeepingthemthereforlongerhours,inadditionto invadingtheirhome.Thereareatpresent <u>noindicationssuggestingthebeginningsof</u> *telecommuting*.

• ... thelesstimetheyspendshoppinginstoresandcommutingintraffic. (SeeChart9)

ThiseffectgrowswiththenumberofInternethours/week,andasmightbeexpected,standsout particularlyclearlyforpeoplewhousethewebforresearchingproductinformationorfor actuallymakingpurchasesonline,thussavingtripstothestore.Butitdoesnotaffecttimespent commuting intraffic,whichdecreaseswiththenumberofInternethoursforthe <u>non-working</u> populationonly,whetherornottheyshopontheweb -*workingInternetusersdrivetoworkjust asmuchasbefore*.

MythandRealityofthe'DigitalDivide':

- Thereare <u>some</u>demographicdifferencesinInternet <u>access</u>. (*SeeChart10*) 21percentofdifferencesinInternetaccesscanbeexplainedbydemographicfactors.Byfar *themostimportantfactorsfacilitatingorinhibitingInternetaccessareeducationandage* and notincome-norrace/ethnicityorgender,eachofwhichaccountforlessthan5percent changeinratesofaccessandarestatisticallyinsignificant.Bycontrast,acollegeeducation boostsratesofInternetaccessbywellover40percentagepointscomparedtotheleast educatedgroup,whilepeopleover65showamorethan40percentagepointdropintheir ratesofInternetaccesscomparedtothoseunder25.Agereallyreflects generational differences,andthusshowswhattoexpectinthefuture.
- Thereare <u>few</u>demographicdifferencesinInternet <u>use</u>. (*SeeCharts11&12*) Only6percentofdifferencesinInternetusecanbeexplainedbydemographicfactors :Thus, oncepeopleareconnectedtotheNettheyhardlydifferinhowmuchtheyuseitandwhat theyuseitfor -exceptforadrop-offafterage65,andafainthintofagendergap. DemographicdifferencesinInternetuseinvolveatmostanhourandahalfaweek,mainly reflectingpeople'stimebudgetsandworkstatus;andtheyinvolvehardlymorethanhalfan additionalInternetactivity,inthelattercasereflectinglevelsofeducation.Instead-and aboveall-Internetuseincreasesdramatically,bothintermsofamountoftimeandinterms ofrangeofactivities,thelongerpeoplehavebeenconnectedtotheInternet,andthisfactwill makeforsteadygrowthinthefuture.





Chart2: INDIVIDUALINTERNETACCESS









Chart4:



Chart5:

Chart6: SOCIALISOLATIONINCREASES











Chart9: INTERNETUSERSCHANGESHOPPING&DRIVINGHABITS

Chart10: DIFFERENCESINRATESOFINTERNETACCESS: EFFECTSOFAGE,EDUCATION,GENDER,RACE/ETHNICITY,INCOME









II.PressRelease

2/16/00

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Studyoffersearlylookathow Internetischangingdailylife

As Internetusegrows, Americans report they spendless time with friends and family, shopping instoresor watching television, and more time working for their employers at home - without cutting back their hours in the office.

Thesearethe major preliminaryresults of an ewstudy that is the first assessment of the social consequences of Internetuse based on a large, representative sample of Americanhouseholds, including both Internetusers and non-users. The study was conducted by the Stanford Institute for the Quantitative Study of Society (SIQSS) and released to day. The sample was of 4,113 adults in 2,689 households.

Akeyfindingofthestudyisthat "themorehourspeople use the Internet, the less time theyspend with real human beings, "said Stanford Professor Norman Nie , Director of SIQSS and principal investigator of the study along with his co- investigator Professor Lutz Erbringof the Free University of Berlin." This is an early trend that, as a society, we really need to monitor carefully."

Whileanumberofcommentatorshave speculatedabouthowtheInternetmight changepeople's daily lives,andsomestudieshavelookedattheusepatternsofnonrepresentativegroupsofInternetusers,onlyasample representativeofhouseholds nationallyallowsanalyststomakeprojectionsaboutfutureInternetusageandits likely consequences,the researcherssay. TheyworkedwithInterSurveyofMenloPark, Calif.,todevelopauniqueInternet-basedmethodforconductingsurveyswithanational probabilitysampleofthegeneral population, includingboth Internet usersandnonusers.

Someofthepreliminaryfindings are:

- PeoplespendmorehoursontheInternetthemoreyearstheyhavebeenusing it.
- AquarteroftherespondentswhousetheInternetregularly(morethan5hours a week)feel thatithasreducedtheirtimewithfriendsandfamily, orattending eventsoutsidethehome.
- Aquarterofregular InternetuserswhoareemployedsaytheInternethas increasedthetimetheyspendworkingat home withoutcuttingbackatthe office.
- SixtypercentofregularInternetuserssaytheInternet hasreducedtheirTV viewing,andonethirdsaythey spendlesstimereading newspapers.
- Theleasteducatedandthe oldestAmericansareleastlikelytohaveInternet access,butwhentheydousetheInternet,theiruseissimilartoothers.

Abouttwo-thirdsofthosesurveyed whohaveInternetaccesssaidtheyspend fewerthanfivehoursaweekontheInternet,andmostofthemdidnotreportlarge changesintheirday-to-daybehavior,theresearcherssaid.Buttheother36percent whousetheInternetfive ormore hours aweekdoreportsignificantchangesintheir lives.Thelargestchangesarereportedbythosewhospendmorethan10hoursa weekonthenet-individualswhocurrently accountforonly15percentofallInternet usersbutarelikelytobeamuchlargerfractioninthefuture.

"Asof today,heavyInternetusersarestillasmallfractionofthetotal population", Niesaid,"butthatfractionissteadilygrowing."

"Moreover,"Erbringadded,"timespentonthenetalsogrowswiththenumberof yearsapersonhasbeenconnected."

NieandErbringemphasizedthattheiranalysisispreliminary,andSIQSSplansto conductfollow-up studiesonatleastanannualbasis.

INTERNETUSE(HOURS/WEEK)



Methodused

Theresearchmethod ologyemployedforthisstudyproduce salarge, representativesampleofallAmericanhouseholds,notjustcurrentcomputer or Internet users.NieandErbring usedInterSurvey,acompanyNieco-founded , to conductthe survey onthenet . (Nie,apoliticalscientistwithexpertiseinsurveys ,isco-founder and chairmanofthecompany'sboard.Stanfordisaninvestor inthecompany, andthe university'sbusinessschoolhasanagreementtoconductoccasionalresearchthrough InterSurvey.)

InterSurvey isintheprocessofgiving Internetdevicesandconnectivitytoseveral hundredthousandhouseholdsin exchange fortheirparticipation insurveysand marketingstudiesofalltypes. Todate, InterSurveyhasbuilta35,000-personpanelof participantsandhassuppliedthemallwithfreeWebTV.Usingthisset-topboxallows peopletoaccessthe Internetthroughtheirtelevisionset, and enables the researchers toquicklysurveythosewhowouldnototherwisehave Internetaccess. The company alsopaysforeveryparticipatinghouseholdtobeconnected to the Internet.

ByusingnewlyenrolledhouseholdsNieandErbringwereableto distinguish betweenthosewhohadpriorconnectiontothe Internetandthosewho didnot. The samplingerrorforthisstudyisplusorminus1.5percent forquestionsaskedof everyoneinthesample andplusorminus 2.5percent forinformation collectedonly fromthosewhohavehad Internet prior access.

Socialisolationup

"Internettimeiscomingoutoftimeviewingtelevisionbutalso attheexpense of timepeoplespendonthephonegabbingwith family and friendsorhavinga conversationwithpeopleintheroomwiththem,"Niesaid.

MostInternetusersusee-mail , and undoubtedlyhaveincreasedtheir "conversations"with familyandfriendsthroughthismedium,hesaid."E-m ail isawayto stayintouch,butyoucan'tsharea coffeeorabeerwithsomebodyone-mailorgive themahug,"hesaid.

"The Internetcouldbethe ultimate isolatingtechnologythat further reducesour participationincommunitiesevenmorethan television did beforeit,"hesaid.

Forthemostpart, Niesaid, the Internetisan individual activity. "It's notlike TV, which you can treat as background noise. It requires more engagement and attention.

Of regularInternetusers,whousethenet5ormore hoursaweek,aboutone quarter reportspending lesstime with familyandfriends ,eitherinpersonoronthe phone,andtenpercentsay theyspendlesstimeattending social events outsidethe home.



INTERNETUSERSSPENDLESSTIMEINSOCIALACTIVITIES

Ontheotherhand, Erbringsaid, "thosewhousetheInternetmostalsoreport spendingfewerhourscaughtintraffic, fewerhours in shopping malls , and especially, less timewatchingtelevision."

"E-commercemay soon changelanduseforbricks-and-mortarretailassome peoplehavebeensaying,"Niesaid, "andeventually wemaystarttoseesomecapon thegrowthoftrafficgridlock."

INTERNETUSERSCHANGESHOPPING&DRIVINGHABITS





Workinvadeshome

"Oneofthesurprisesforuswasthedegreetowhichpeopletellusthattheyare workingathomeonthe Internetfortheiremployers,"Niesaid.

Onlysmallnumber-4percentof regularl nternetusers workingfullorpart-time -saidtheyhadcutbacktheirhoursatworksince gaining Internetaccess, butamuch largernumber -16 percent of employed regular Internet userssaidtheywereworking morehoursathomesincetheygained Internetaccesswithoutcuttingbackattheoffice with9percentactuallyreportingincreasesintimespentworkingbothathomeand at the office. Ineffect, more than a guarter of full or part-time workers whousetheInternet morethan5hoursaweek saidthe Internethasincreasedtheamountoftimespent workingathome withoutdecreasingtheamountof timespentworkingintheoffice.

"Wemaybeseeingtheverybeginningoftelecommuting,"Niesaidofthe 4 percentwhohavecutbackonhoursintheoffice."Ontheotherhand,weallknowfrom ourcellphonesand laptopsthatworkappearstobeintrudingintoeveryotheraspectof ourlives ,andthat'soneoftheclearesttrendsinthesedata."



Mainstreamonlinebutdigitaldividepersists

"The InternetisenteringthemainstreamofAmericansociety,"Erbringsaid,with abouthalfofthepopulationhavingaccesssomewhere, 38percentofthemintheir homes,andanother17percentelsewhere,mostlyofficesandschools .

"Everybodyisgoingtobeausersoon, and access isgrowingby successive birth cohorts. "Niesaid."That meanswecanexpecttoseelargechangesfor communitiesandsocietyasawhole." Whatwearemarkingnowis thehalfwaypointin this disseminationprocess.

HOUSEHOLDSCONNECTEDTOINTERNET



INDIVIDUALINTERNETACCESS



Merea ccessto the Internethasbeenstudiedmore inthepastthan actual Internetuse. "Thisstudyconfirmedothersthathavefound demographicdifferencesin whohasaccess ,"Niesaid . "Thosewithoutaccessare ,abov e all, lesseducatedand ,to alesserextent, morelikelytobeAfricanAmericansorHispanics.Womenalsohave somewhat lessaccess,buttheStanfordresearchersfoundthegenderdifference tobe mostlyamong menandwomen whoarenot workingoutsidethehome. Thisisthe often discussed "digital divide."

"What'sequallyinteresting, however, isthatoncepeoplehaveaccesstothe Internet,therearemoresimilarities in thandifferencesintermsofhowmuchtheyuseit andtheactivitiestheyuseitfor,"Niesaid."Once people haveaccess,blackslooklike whites,thecollege-educatedlooklikethenon-collegeeducated,andagegroupstendto bemorehomogeneousthanwemighthavethought ,except forthoseaboveage65 ". **E-mailpopular,notchatrooms**

Themostcommon Internetactivitiesforeachdemographicgroupare sending andreceivingelectronicmailand searchingforinformation , he said.Onaverage, users saidtheyusedifforsixtosevendifferentactivities. Amajorityhavestartedtouseitasa consumerresource."Forexample, between 50 and 60 percentuse it for traveland product information," Erbringsaid." A littleoverathird of Internetusers report having madeanon line purchase. On line stock trading, banking, or auctions remain marginal activities,barely reaching1 5percent,andonlyapproaching 23percentevenamong veteran netizenswhohavebeenInternetusers for morethanfiveyears ."Still,onein fourregularInternetuserssaytheyspendlesstimeshoppinginstores,and15percent saytheyspendlesstimeintrafficsincetheygainedInterne taccess.

Thereare some usagedifferencesbetweendemographicgroups,buttheyare relativelysmall,Niesaid."Men,forexample,aremorelikelytolookforstockquotesor buystocksonthenetthanwomen,andchatroomsarealmostexclusivelyusedby thoseunderage30.Afterage6 5, Internetusagefallsoffquiteabit,butthebaby boomers andtheyoung are aboutequally activeonthenet. This indicates we'vecome to pointwhere if you are going to be part of the moderne conomy or society, you have to be connected. It's a contagion that's already reached people in the irfifth decade, "Niesaid.

Televisionusedown

Thestudyconfirmssuspicionsthat Internetusecomespartlyattheexpenseof televisionviewing.

"We find thatabout 60percent ofthosewhousethe Internetmorethanfive hoursaweekaretellingusitiscomingoutoftheirTVtime.Even amongthosewho spend onlyafew hoursaweekonthenet ,aquarter tellusitcutsintotheirTVviewing," saidErbring,whoisaprofessorofmasscommunicationsspendingasabbaticalatthe StanfordInstituteandteaching social researchmethodsintheDepartmentof Communication."Thistrendislikelytohaveamajorimpactontheeconomicsofthe mediaindustryand,asrecent developmentssuggest,mayleadtofurtherintegrationof mediaandinformationdelivery technologies."

Internetusersalsoreportspendinglesstimereadingnewspapers."Ofcourse, it maybethattheyarereadingnewsonthewebsotheydon'treadhardcopy anymore, "headded.

Television hasconsumedamuchbiggerchunkofpeople'stimethannewspapers, however, soitisingreatercompetitionwith the Internetfortime,hesaid."Ifyouspend twoorthreehoursadayonthenet,thosearetwoorthreehoursyoudon'thavefor watchingtelevision,"Erbringsaid."Youcan'tsurfthewebandwatchTVatthesame time."

Inthenearfuture, peoplemay be able to view at elevision program on the same screen where they are working on the Internet simultaneously. "It stooe arly to tell if people will do this sort of multi-tasking as part of their daily routine, but even if they do, their attention will be fragmented, because Internet used emands more concentration. Erbrings aid.

"

INTERNETUSERSDESERTTHEMASSMEDIA



PERCENTAGEOFREGULARUSERS(5+HOURS/WEEK)

'Homealoneand anonymous'

Nie, who has in the past studied the decline of American involvement in politics and community organizations, said that while many commentators have expressed concerns about invasion of privacy on the Internet, few have focused on the potential psychological and emotional affects of "more people being home, alone and anonymous."

Nie alsoexpressedconcernabouttheethicaleffectsforbusinessdealings. "Whenwelivedinsmallcommunities,theoldstorywasthatyousaidtoyourself,'l'llsee thisguyandhiswifeatchurchonSundaysolbetterbehonestwithhimtoday.'Then wemovedtothebiganonymouscitiesanditbecame'Hell,l'llhardlyeverseethisguy.' Now,it'sbecoming'Hell,Iwon'teverevenknowthisguy'sname.'"

Niesaid the Instituteplanstocontinueto studythesocialeffectsofinformation technologyasusers'patternschangeandmorepeoplegainaccess."Plentyof companiesaredoingresearchonthe Internet,butit'smostlyaboutpeople'sbuying behavior,"hesaid."Weneedtolookmuchbroaderthanthatto contributetoa public discourse aswebuildthispowerfulnew technology,and to helpusformulatebetter public and privatepolicy decisions,"hesaid.

"Hopefully, wewilldomoreconsciousjob of examiningtheunintended and potentiallynegative consequences of constructing ournew electronicsystemfor informationandcommerce inthiscentury thanwedid in buildingit sphysicalcounterpart ofstreetsandhighwaysinthelast century." **III.Appendices**

INTERSURVEYQUESTIONNAIRE

 $\label{eq:starseq} ** Please note that questions are not necessarily sequential; only questions included in the SIQSS study have been listed. **$

1.ExcludingyourWebTVunit,howmanycomputersdoyou

nowhaveinyourhome?

onaverage usingtheInternet?

- None
- One
- Twoormore

2.Doyouuseacomputerinplacesotherthanyourhome? Checkbox

- No.
- Yes,atwork
- Yes,inschool
- Yes, in a public place such as the library

5. AreanyofyourhomecomputersconnectedtotheInternet?

- Yes
- No

6. Doyou, yourself, use this home computer to access the Internet?

- Yes
- No

7.NotincludingyourWebTV,howlonghaveyoubeenusingtheInternetinyourhome? Years Allowablerange=00to15

9. Doyouaccess the internet using any computer *not* iny our home?

- Yes
- No

10.HowlonghaveyoubeenusingtheInternetthroughacomputeroutsideofyourhome? Years Allowablerange=00to15

12.Notincludingemail,abouthowmanyhoursinaweekdoyouspend

- Lessthananhour
- Uptofivehours
- Fivetotenhours
- Betweentenandtwentyhours
- Overtwentyhours

14. Now think about using the internet for email. On average, about how many hours a week doyou use the Internet for email?

- Lessthananhour
- Uptofivehours
- Uptotenhours
- Betweentenandtwentyhours
- Overtwentyhours

16.WhenyouusetheInternet,whatdoyouuseitfor?Checkbox E-mail Readingthenews, weather or sports Homeworkforschool Learningorgatheringinfo-notschoolrelated Jobsearches Work/Business Communicationwithotherssuchasinchatroomsormessageboards Entertainmentsuchasplayinggames Surfing Researchinghobbies Makingorresearchingtravelinformationorreservations Gatheringproductorstore information Buvinggoodsorservices(requiresenteringyourcredit card) Participatinginonlineauctionsbybuyingorsellingproducts Lookingupstockquotes Buyingstocksorinvestingonline Bankingonline Other 18.Ingeneral, where doyoum ost of tenuse the Internet . . . Onlyoutsidemyhome Mostlyoutsidemyhome Aboutequallyinmyhomeandoutsidemyhome Mostlvinmvhome Onlyinmyhome 19. Hasusing the Internet changed the amount of time you spend... Increased Unchanged Decreased Workingattheoffice Workingathome Shoppinginstores Commutingintraffic Readingnewspapers Watchingtelevision Spendingtimewithyourfamily

FOLLOW-UPQUESTIONNAIRE

Spendingtimewithyourfriends

Watchingtelevision Attendingevents

Q1.Onaverage, abouthowmanyhoursaweekdoyouspendusingtheInternet? (1)None (2)Lessthanonehour (3)Onetofivehours (4)Fivetotenhours (5)Tentotwentyhours (6)Morethantwentyhours

Q3. Has using the Internet changed the amount of time you spendtalking to friends and family on the telephone?

(1)Increased(2)Aboutthesame(3)Decreased

SURVEYQUESTIONMARGINALS

IUMCOMPExcludingyourWebTV, how many computers doyoun ow have in your

home?

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	1None	1593	38.7	38.8	38.8
	2One	1767	43.0	43.0	81.8
	3Twoormore	749	18.2	18.2	100.0
	Total	4109	99.9	100.0	
Missing	-5	3	.1		
	System	1	.0		
	Total	4	.1		
Total		4113	100.0		

WHEREUSEDoyouuseacomputerinplacesotherthanyourhome?

		_	_		Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0Yes	2354	57.2	57.2	57.2
	1No	1759	42.8	42.8	100.0
	Total	4113	100.0	100.0	

$\verb+TWORKD oyou use a computer in places other than your home? Yes,$

atwork.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	2184	53.1	53.1	53.1
	1Yes	1928	46.9	46.9	100.0
	Total	4113	100.0	100.0	

INSCHOOLDoyouuseacomputerinplacesotherthanyourhome? Yes,inschool.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	3786	92.0	92.0	92.0
	1Yes	327	8.0	8.0	100.0
	Total	4113	100.0	100.0	

NPUBLICDoyouuseacomputerinplacesotherthanyourhome?Yes, inpublicplacesuchasthelibrary.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	3514	85.5	85.5	85.5
	1Yes	598	14.5	14.5	100.0
	Total	4113	100.0	100.0	

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	936	22.8	37.5	37.5
	1Yes	1561	37.9	62.5	100.0
	Total	2496	60.7	100.0	
Missing	-5	1205	29.3		
	9DK	20	.5		
	System	391	9.5		
	Total	1616	39.3		
Total		4113	100.0		

CONNECTAreanyofyouhomecomputersconnectedtotheinternet?

YOUACCESDoyou, yourself, use this home computer to access the internet?

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	0No	259	6.3	16.7	16.7
	1Yes	1294	31.5	83.3	100.0
	Total	1553	37.8	100.0	
Missing	-5	1867	45.4		
	System	692	16.8		
	Total	2560	62.2		
Total		4113	100.0		

MARGINALSFORINTERNETUSERS

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0	214	10.5	16.6	16.6
	1	165	8.1	12.8	29.3
	2	246	12.1	19.0	48.4
	3	227	11.2	17.6	65.9
	4	152	7.5	11.8	77.7
	5	141	6.9	10.9	88.7
	6	59	2.9	4.6	93.2
	7	29	1.4	2.2	95.4
	8	24	1.2	1.9	97.3
	9	12	.6	.9	98.2
	10	13	.6	1.0	99.2
	11	2	.1	.1	99.4
	12	5	.2	.4	99.7
	13	1	.0	.1	99.8
	15	3	.1	.2	100.0
	Total	1293	63.6	100.0	
Missing	System	742	36.4		
Total		2035	100.0		

INTHWLNGNotincludingyourWebTV, howlonghaveyoubeenusing the internetinyourhome(years)?

INTOTHERDoyouaccesstheinternetusinganycomputernotinyour home?

		Frequency	Percent	ValidPercent	Cumulative Percent
		ттечиенсу	TEICEII		Tercent
Valid	0No	289	14.2	17.2	17.2
	1Yes	1391	68.3	82.6	99.8
	9DK	4	.2	.2	100.0
	Total	1684	82.7	100.0	
Missing	System	352	17.3		
Total		2035	100.0		

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0	233	11.5	16.8	16.8
	1	258	12.7	18.6	35.5
	2	295	14.5	21.2	56.7
	3	179	8.8	12.9	69.6
	4	133	6.6	9.6	79.3
	5	134	6.6	9.7	88.9
	6	67	3.3	4.8	93.8
	7	24	1.2	1.7	95.5
	8	18	.9	1.3	96.8
	9	3	.2	.3	97.1
	10	21	1.0	1.5	98.6
	11	2	.1	.1	98.7
	12	7	.3	.5	99.2
	13	1	.0	.1	99.3
	15	9	.4	.6	99.9
	20	1	.1	.1	100.0
	Total	1386	68.1	100.0	
Missing	System	649	31.9		
Total		2035	100.0		

INTOTHYRHowlonghaveyoubeenusingtheinternetthroughacomputer outsideofyourhome(years)?

EMAILWhenyouusetheinternet,whatdoyouuseitfor?E-mail.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	175	8.6	10.0	10.0
	1Yes	1570	77.2	90.0	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

READINGWhenyouusetheinternet,whatdoyouuseitfor?Readingthe news,weather,orsports.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	582	28.6	33.3	33.3
	1Yes	1163	57.2	66.7	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	0No	1381	67.8	79.1	79.1
	1Yes	364	17.9	20.9	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

IOMEWORKWhenyouusetheinternet,whatdoyouuseitfor?Howework forschool.

LEARNINGWhenyouusetheinternet,whatdoyouuseitfor?Learingor gatheringinfo-notschoolrelated.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	403	19.8	23.1	23.1
	1Yes	1342	65.9	76.9	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

OBSRCHWhenyouusetheinternet, whatdoyouuseitfor? Jobsearches.

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	0No	1291	63.4	74.0	74.0
	1Yes	454	22.3	26.0	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

WORK_BUSWhenyouusetheinternet,whatdoyouuseitfor? Work/Business.

		Frequency	Dereent	ValidDaraant	Cumulative
		Frequency	Percent	validPercent	Percent
Valid	0No	941	46.2	53.9	53.9
	1Yes	804	39.5	46.1	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	1323	65.0	75.8	75.8
	1Yes	422	20.7	24.2	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

COMMUNWhenyouusetheinternet,whatdoyouuseitfor? Communicationwithotherssuchasinchatroomsormessageboards.

NTRTAINWhenyouusetheinternet,whatdoyouuseitfor?Entertainment suchasplayinggames.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	1126	55.3	64.5	64.5
	1Yes	619	30.4	35.5	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

${\small SURFINGWhen you use the internet, what do you use it for ? Surfing.}$

		_			Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	543	26.7	31.1	31.1
	1Yes	1202	59.1	68.9	100.0
	Total	1745	85.7	100.0	
Missing	System	290	14.3		
Total		2035	100.0		

HOBBIESWhenyouusetheinternet,whatdoyouuseitfor?Researching hobbies.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	639	31.4	36.6	36.6
	1Yes	1107	54.4	63.4	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	803	39.5	46.0	46.0
	1Yes	942	46.3	54.0	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

FORTRAVWhenyouusetheinternet,whatdoyouuseitfor?Makingor researchingtravelinformationorreservations.

BUYRSRCHWhenyouusetheinternet,whatdoyouuseitfor?Gathering productorstoreinformation.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	671	33.0	38.4	38.4
	1Yes	1075	52.8	61.6	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

3UYINGWhenyouusetheinternet,whatdoyouuseitfor?Buyinggoodor services(requiresenteringyourcreditcard).

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	1110	54.5	63.6	63.6
	1Yes	636	31.2	36.4	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

⁻ORAUCSWhenyouusetheinternet,whatdoyouuseitfor?Participating inonlineauctionsbybuyingorsellingproducts.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	1519	74.6	87.0	87.0
	1Yes	227	11.1	13.0	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

	stockquotes.									
		Frequency	Percent	ValidPercent	Cumulative Percent					
Valid	0No	1279	62.8	73.2	73.2					
	1Yes	467	23.0	26.8	100.0					
	Total	1746	85.8	100.0						
Missing	System	289	14.2							

100.0

STOCKSWhenyouusetheinternet,whatdoyouuseitfor?Lookingup stockquotes.

IVESTWhenyouusetheinternet,whatdoyouuseitfor?Buyingstocksor investingonline.

2035

Total

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	1623	79.7	93.0	93.0
	1Yes	123	6.0	7.0	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

BANKWhenyouusetheinternet, whatdoyouuseitfor?Bankingonline.

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	1533	75.3	87.8	87.8
	1Yes	213	10.5	12.2	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

GN011618Whenyouusetheinternet, whatdoyouuseitfor?Other.

		_			Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	0No	1559	76.6	89.3	89.3
	1Yes	187	9.2	10.7	100.0
	Total	1746	85.8	100.0	
Missing	System	289	14.2		
Total		2035	100.0		

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	1Onlyoutsidemyhome	29	1.4	1.7	1.7
	2Mostlyoutsidemy home	263	12.9	15.1	16.8
	3Aboutequallyinmy homeandoutsidemy home	329	16.2	18.9	35.6
	4Mostlyinmyhome	731	35.9	41.9	77.5
	5Onlyinmyhome	392	19.2	22.5	100.0
	Total	1744	85.7	100.0	
Missing	System	291	14.3		
Total		2035	100.0		

WHRCONCTIngeneral, where doyou most of tenuse the internet?

CH_ATHOMWork@home:Hasusingtheinternetchangedtheamountoftimeyou spend:workingatthehome?

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	1Increased	358	17.6	21.2	21.2
	2Unchanged	1256	61.7	74.4	95.6
	3Decreased	74	3.6	4.4	100.0
	Total	1688	83.0	100.0	
Missing	System	347	17.0		
Total	-	2035	100.0		

CH_ATOFFWork@office:Hasusingtheinternetchangedtheamountoftimeyou spend:workingattheoffice?

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	1Increased	138	6.8	8.4	8.4
	2Unchanged	1425	70.0	86.8	95.2
	3Decreased	79	3.9	4.8	100.0
	Total	1642	80.7	100.0	
Missing	System	393	19.3		
Total		2035	100.0		

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	1.00increaseatboth	74	3.7	4.6	4.6
	2.00increaseatoffice andunchangeathome	55	2.7	3.4	7.9
	3.00increaseathome and unchange atoffice	220	10.8	13.5	21.4
	4.00increaseatoffice and decrease at home	5	.2	.3	21.7
	5.00increaseathome anddecreaseatoffice	45	2.2	2.8	24.5
	6.00unchangeatboth	1144	56.2	70.2	94.6
	7.00decreaseathome andunchangeatoffice	55	2.7	3.4	98.0
	8.00decreaseatoffice and unchange at home	23	1.1	1.4	99.4
	9.00decreaseatboth	9	.5	.6	100.0
	Total	1631	80.2	100.0	
Missing	System	404	19.8		
Total		2035	100.0		

CH_OFHOMchangeinworkingathomeandoffice

;H_ATSTRStores:Hasusingtheinternetchangedtheamountoftimeyouspend: shoppinginstores?

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	1Increased	55	2.7	3.3	3.3
	2Unchanged	1310	64.4	77.9	81.2
	3Decreased	316	15.5	18.8	100.0
	Total	1682	82.6	100.0	
Missing	System	353	17.4		
Total		2035	100.0		

H_INCARTraffic:Hasusingtheinternetchangedtheamountoftimeyouspend: commutingintraffic?

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	1Increased	19	.9	1.2	1.2
	2Unchanged	1459	71.7	89.2	90.3
	3Decreased	159	7.8	9.7	100.0
	Total	1636	80.4	100.0	
Missing	System	399	19.6		
Total		2035	100.0		

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	1Increased	104	5.1	6.1	6.1
	2Unchanged	1153	56.6	68.1	74.3
	3Decreased	436	21.4	25.7	100.0
	Total	1692	83.2	100.0	
Missing	System	343	16.8		
Total		2035	100.0		

;H_RNEWSNews:Hasusingtheinternetchangedtheamountoftimeyouspend: readingnewspapers?

CH_WTVTV:Hasusingtheinternetchangedtheamountoftimeyouspend: watchingtelevision?

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	1Increased	62	3.1	3.6	3.6
	2Unchanged	854	42.0	49.9	53.5
	3Decreased	795	39.1	46.5	100.0
	Total	1711	84.1	100.0	
Missing	System	324	15.9		
Total		2035	100.0		

CH_EVENEvents: Hasusing the internet changed the amount of time you spend: attending events?

		Frequency	Percent	ValidPercent	Cumulative Percent
Valid	1Increased	63	3.1	3.8	3.8
	2Unchanged	1521	74.7	91.0	94.7
	3Decreased	88	4.3	5.3	100.0
	Total	1672	82.2	100.0	
Missing	System	363	17.8		
Total		2035	100.0		

H_WFAMFamily:Hasusingtheinternetchangedtheamountoftimeyouspend: spendingtimewithyourfamily?

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	1Increased	101	5.0	6.0	6.0
	2Unchanged	1445	71.0	85.5	91.4
	3Decreased	145	7.1	8.6	100.0
	Total	1690	83.1	100.0	
Missing	System	345	16.9		
Total		2035	100.0		

H_WFRNFriends:Hasusingtheinternetchangedtheamountoftimeyouspend: spendingtimewithyourfriends?

		Fraguanay	Doroont	ValidDaraant	Cumulative
		Frequency	Percent	valiuPercent	Percent
Valid	1Increased	72	3.6	4.3	4.3
	2Unchanged	1458	71.7	86.5	90.8
	3Decreased	154	7.6	9.2	100.0
	Total	1685	82.8	100.0	
Missing	System	350	17.2		
Total		2035	100.0		

CHFRIENDHasusingtheinternetchangedtheamountoftimeyouspendtalkingto friendsandfamilyonthephone?

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	1.00Increased	68	3.4	3.4	3.4
	2.00Unchanged	1593	78.3	79.0	82.4
	3.00Decreased	354	17.4	17.6	100.0
	Total	2015	99.0	100.0	
Missing	System	20	1.0		
Total		2035	100.0		

CHAT_FAMWhenyouparticiapteinchatroomsormessageboards,doyouchat with...Familymembers?

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	-2.00skippedbyR	1172	57.6	57.6	57.6
	.00No	659	32.4	32.4	90.0
	1.00Yes	204	10.0	10.0	100.0
	Total	2035	100.0	100.0	

CHAT_FRDWhenyouparticiapteinchatroomsormessageboards,doyouchat *i*th...friendsyoumetpriortoyourparticipationinthechatroomormessageboard?

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	-2.00skippedbyR	1172	57.6	57.6	57.6
	.00No	622	30.6	30.6	88.2
	1.00Yes	240	11.8	11.8	100.0
	Total	2035	100.0	100.0	

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	-2.00skippedbyR	1172	57.6	57.6	57.6
	.00No	542	26.6	26.6	84.2
	1.00Yes	321	15.8	15.8	100.0
	Total	2035	100.0	100.0	

$\label{eq:charge} CHAT_NEWWhen you participation charge on the stress and the s$

CHAT_STRWhenyouparticiapteinchatroomsormessageboards,doyouchat with...peopleyouaremeetingforthefirsttime?

					Cumulative
		Frequency	Percent	ValidPercent	Percent
Valid	-2.00skippedbyR	1172	57.6	57.6	57.6
	.00No	229	11.3	11.3	68.9
	1.00Yes	634	31.1	31.1	100.0
	Total	2035	100.0	100.0	

Cumulative Frequency Percent ValidPercent Percent Valid 1.00none 39 1.9 1.9 1.9 2.00lessthanonehour 16.7 298 14.7 14.8 3.00onetofivehours 968 47.5 48.1 64.8 4.00fivetotenhours 437 21.5 21.7 86.5 5.00tentotwentyhours 187 9.2 9.3 95.8 6.0020+ 4.2 4.2 100.0 85 Total 2014 98.9 100.0 Missing -2.00 22 1.1 Total 2035 100.0

HRSWEEKOnaverage, about how many hours a week doy ous pendusing the Internet?