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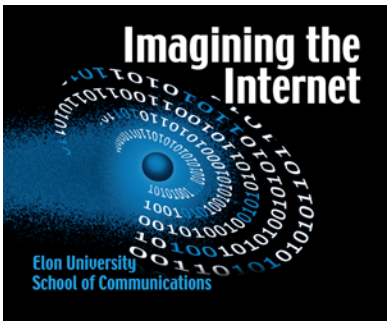

The future of social relations

The social benefits of internet use will far outweigh the negatives over the next decade, according to experts who responded to a survey about the future of the internet. They say this is because email, social networks, and other online tools offer 'low-friction' opportunities to create, enhance, and rediscover social ties that make a difference in people's lives. The internet lowers traditional communications constraints of cost, geography, and time; and it supports the type of open information sharing that brings people together.

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THE FUTURE OF THE INTERNET

This publication is part of a Pew Research Center series that captures people's expectations for the future of the internet, in the process presenting a snapshot of current attitudes. Find out more at: http://www.pewInternet.org/topics/Future-of-the-Internet.aspx and http://www.imaginingtheinternet.org.

Overview

While they acknowledge that use of the internet as a tool for communications can yield both positive and negative effects, a significant majority of technology experts and stakeholders participating in the fourth Future of the Internet survey say it improves social relations and will continue to do so through 2020.

The highly engaged, diverse set of respondents to an online, opt-in survey included 895 technology stakeholders and critics. The study was fielded by the Pew Research Center's Internet & American Life Project and Elon University's Imagining the Internet Center.

Some 85% agreed with the statement:

> "In 2020, when I look at the big picture and consider my personal friendships, marriage and other relationships, I see that the internet has mostly been a positive force on my social world. And this will only grow more true in the future."

Some 14% agreed with the opposite statement, which posited:

> "In 2020, when I look at the big picture and consider my personal friendships, marriage and other relationships, I see that the internet has mostly been a negative force on my social world. And this will only grow more true in the future."

Most of people who participated in the survey were effusive in their praise of the social connectivity already being leveraged globally online. They said humans' use of the internet's capabilities for communication – for creating, cultivating, and continuing social relationships – is undeniable. Many enthusiastically cited their personal experiences as examples, and several noted that they had met their spouse through internet-borne interaction.

Some survey respondents noted that with the internet's many social positives come problems. They said that both scenarios presented in the survey are likely to be accurate, and noted that tools such as email and social networks can and are being used in harmful ways. Among the negatives noted by both groups of respondents: time spent online robs time from important face-to-face relationships; the internet fosters mostly shallow relationships; the act of leveraging the internet to engage in social connection exposes private information; the internet allows people to silo themselves, limiting their exposure to new ideas; and the internet is being used to engender intolerance.

Many of the people who said the internet is a positive force noted that it "costs" people less now to communicate – some noted that it costs less money and others noted that it costs less in time spent, allowing them to cultivate many more relationships, including those with both strong and weak ties. They said "geography" is no longer an obstacle to making and maintaining connections; some noted that internet-based communications removes previously perceived constraints of "space" and not just "place."

Some respondents observed that as use of the internet for social networks evolves there is a companion evolution in language and meaning as tech users redefine social constructs such as "privacy" and "friendship." Other respondents suggested there will be new "categories of relationships," a new "art of politics," the development of some new psychological and medical syndromes that will be "variations of depression caused by the lack of meaningful quality relationships," and a "new world society."

A number of people said that as this all plays out people are just beginning to address the ways in which nearly "frictionless," easy-access, global communications networks change how reputations are made, perceived, and remade.

Some confidently reported that they expect technological advances to continue to change social relations online. Among the technologies mentioned were: holographic displays and the bandwidth necessary to carry them; highly secure and trusted quantum/biometric security; powerful collaborative visualization decision-based tools; permanent, trusted, and unlimited cloud archive storehouses; open networks enabled by semantic web tools in public-domain services; and instant thought transmission in a telepathic format.

Many survey participants pointed out that while our tools are changing quickly, basic human nature seems to adjust at a slower pace.

Survey Method: 'Tension pairs' were designed to provoke detailed elaborations

This material was gathered in the fourth "Future of the Internet" survey conducted by the Pew Research Center's Internet & American Life Project and Elon University's Imagining the Internet Center. The surveys are conducted through online questionnaires to which a selected group of experts and the highly engaged Internet public have been invited to respond. The surveys present potential-future scenarios to which respondents react with their expectations based on current knowledge and attitudes. You can view detailed results from the 2004, 2006, 2008 and 2010 surveys here: http://www.pewInternet.org/topics/Future-of-the-Internet.aspx and http://www.elon.edu/e-web/predictions/expertsurveys/default.xhtml. Expanded results are also published in the "Future of the Internet" book series published by Cambria Press.

The surveys are conducted to help accurately identify current attitudes about the potential future for networked communications and are not meant to imply any type of futures forecast.

Respondents to the Future of the Internet IV survey, fielded from Dec. 2, 2009 to Jan. 11, 2010, were asked to consider the future of the Internet-connected world between now and 2020 and the likely innovation that will occur. They were asked to assess 10 different "tension pairs" – each pair offering two different 2020 scenarios with the same overall theme and opposite outcomes – and they were asked to select the one most likely choice of two statements. The tension pairs and their alternative outcomes were constructed to reflect previous statements about the likely evolution of the Internet. They were reviewed and edited by the Pew Internet Advisory Board. Results are being released in five reports over the course of 2010.

The results that are reported in this report are responses to a tension pair that relates to the future of the Internet and cloud computing.

Results to five other tension pairs – relating to the Internet and the evolution of intelligence; reading and the rendering of knowledge; identity and authentication; gadgets and applications; and the core values of the Internet – were released earlier in 2010 at the meeting of the American Association for the Advancement of Science. They can be read at: http://www.pewInternet.org/Reports/2010/Future-of-the-Internet-IV.aspx.

Results from a tension pair requesting that people share their opinions on the impact of the internet on institutions were discussed at the Capital Cabal in Washington, DC, on March 31, 2010 and can be read at: http://pewInternet.org/Reports/2010/Impact-of-the-Internet-on-Institutions-in-the-Future.aspx.

Results from a tension pair assessing people's opinions on the future of the semantic web were announced at the WWW2010 and FutureWeb conferences in Raleigh, NC, April 28, 2010 and can be read at:
http://www.pewinternet.org/Reports/2010/Semantic-Web.aspx

Results from a tension pair probing the potential future of cloud computing were announced June 11 and can be read at: http://pewinternet.org/Reports/2010/The-future-of-cloud-computing.aspx

Final results from the Future IV survey will be released at the 2010 World Future Society conference (http://www.wfs.org/meetings.htm).

Please note that this survey is primarily aimed at eliciting focused observations on the likely impact and influence of the Internet – not on the respondents' choices from the pairs of predictive statements. Many times when respondents "voted" for one scenario over another, they responded in their elaboration that both outcomes are likely to a degree or that an outcome not offered would be their true choice. Survey participants were informed that "it is likely you will struggle with most or all of the choices and some may be impossible to decide; we hope that will inspire you to write responses that will explain your answer and illuminate important issues."

Experts were located in two ways. First, several thousand were identified in an extensive canvassing of scholarly, government, and business documents from the period 1990-1995 to see who had ventured predictions about the future impact of the Internet. Several hundred of them participated in the first three surveys conducted by Pew Internet and Elon University, and they were re-contacted for this survey. Second, expert participants were selected due to their positions as stakeholders in the development of the Internet.

Here are some of the respondents: Clay Shirky, Esther Dyson, Doc Searls, Nicholas Carr, Susan Crawford, David Clark, Jamais Cascio, Peter Norvig, Craig Newmark, Hal Varian, Howard Rheingold, Andreas Kluth, Jeff Jarvis, Andy Oram, Kevin Werbach, David Sifry, Dan Gillmor, Marc Rotenberg, Stowe Boyd, Andrew Nachison, Anthony Townsend, Ethan Zuckerman, Tom Wolzien, Stephen Downes, Rebecca MacKinnon, Jim Warren, Sandra Braman, Barry Wellman, Seth Finkelstein, Jerry Berman, Tiffany Shlain, and Stewart Baker.

The respondents' remarks reflect their personal positions on the issues and are not the positions of their employers, however their leadership roles in key organizations help identify them as experts. Following is a representative list of some of the institutions at which respondents work or have affiliations: Google, Microsoft. Cisco Systems, Yahoo, Intel, IBM, Hewlett-Packard, Ericsson Research, Nokia, New York Times, O'Reilly Media, Thomson Reuters, Wired magazine, The Economist magazine, NBC, RAND Corporation, Verizon Communications, Linden Lab, Institute for the Future, British Telecom, Qwest Communications, Raytheon, Adobe, Meetup, Craigslist, Ask.com, Intuit, MITRE Corporation

Department of Defense, Department of State, Federal Communications Commission, Department of Health and Human Services, Centers for Disease Control and Prevention, Social Security Administration, General Services Administration, British OfCom, World Wide Web Consortium, National Geographic Society, Benton Foundation, Linux Foundation, Association of Internet Researchers, Internet2, Internet Society, Institute for the Future, Santa Fe Institute, Yankee Group

Harvard University, MIT, Yale University, Georgetown University, Oxford Internet Institute, Princeton University, Carnegie-Mellon University, University of Pennsylvania, University of California-Berkeley, Columbia University, University of Southern California, Cornell University, University of North Carolina, Purdue University, Duke University , Syracuse University, New York University, Northwestern University, Ohio University ,Georgia Institute of Technology, Florida State University, University of Kentucky, University of Texas, University of Maryland, University of Kansas, University of Illinois, Boston College, University of Tulsa, University of Minnesota, Arizona State, Michigan State University, University of California-Irvine, George Mason University, University of Utah, Ball State University, Baylor University, University of Massachusetts-Amherst, University of Georgia, Williams College, and University of Florida.

While many respondents are at the pinnacle of Internet leadership, some of the survey respondents are "working in the trenches" of building the web. Most of the people in this latter segment of responders came to the survey by invitation because they are on the email list of the Pew Internet & American Life Project or are otherwise known to the Project. They are not necessarily opinion leaders for their industries or well-known futurists, but it is striking how much their views were distributed in ways that paralleled those who are celebrated in the technology field.

While a wide range of opinion from experts, organizations, and interested institutions was sought, this survey should not be taken as a representative canvassing of Internet experts. By design, this survey was an "opt in," self-selecting effort. That process does not yield a random, representative sample. The quantitative results are based on a non-random online sample of 895 Internet experts and other Internet users, recruited by email invitation, Twitter, or Facebook. Since the data are based on a non-random sample, a margin of error cannot be computed, and results are not projectable to any population other than the respondents in this sample.

Many of the respondents are Internet veterans – 50% have been using the Internet since 1992 or earlier, with 11% actively involved online since 1982 or earlier. When asked for their primary area of Internet interest, 15% of the survey participants identified themselves as research scientists; 14% as business leaders or entrepreneurs; 12% as consultants or futurists, 12% as authors, editors or journalists; 9% as technology developers or administrators; 7% as advocates or activist users; 3% as pioneers or originators; 2% as legislators, politicians or lawyers; and 25% specified their primary area of interest as "other."

The answers these respondents gave to the questions are given in two columns. The first column covers the answers of 371 longtime experts who have regularly participated in these surveys. The second column covers the answers of all the respondents, including the 524 who were recruited by other experts or by their association with the Pew Internet Project. Interestingly, there is not great variance between the smaller and bigger pools of respondents.

Main Findings: Will social relations get better?

	CURRENT EXPERTS N=371	CURRENT TOTAL N=895	Tension pair on the future of social relations
%	12	14	In 2020, when I look at the big picture and consider my personal friendships, marriage, and other relationships, I see that the internet has mostly been a negative force on my social world. And this will only grow more true in the future.
	85	85	In 2020, when I look at the big picture and consider my personal friendships, marriage, and other relationships, I see that the internet has mostly been a positive force on my social world. And this will only grow more true in the future.
	3	1	Did not respond

Background

Technology experts embrace the use of networked communications technologies and are naturally inclined to find them to be useful in social relations, so it is no surprise to see the high level of agreement that the Internet is a tool that gets positive results. Still, quite a few people took advantage of the opportunity to provide written elaborations in which they pointed out many negatives, and they shared other incisive observations.

Survey participants were asked to reflect on their *personal* experiences. Most participants' enthusiasm for the type of connectedness they feel online is evident, and many told their own specific and very personal stories in the written elaborations.

In all of the tension pairs offered in the 2010 survey, people's answers were dependent upon how they defined the key terms in the question set – in this instance, the respondents' individual definition of the word "social" was primary and it varied, as expected.

The growing popularity of social networks over the past five years has had a significant impact on personal and professional relationships and many survey participants referred to Facebook and social networks in general in their answers. The other most-often-mentioned digital networked communications methods included in the survey-takers answers were email, voice over IP (Skype is one example that was used), and text-messaging.

Respondents' thoughts

Survey participants were encouraged to explain their choice after they selected one of the tension-pair scenarios. They were asked to "share your view of the internet's influence on the future of human relationships in 2020 – what is likely to stay the same and what will be different in human and community relations?" Following is a small selection of the hundreds of written elaborations, organized according to some of the major themes that emerged in the answers:

The internet has been embraced globally at an amazing speed because of its capabilities for communication and connection – for creating, cultivating, and continuing social relationships. One big advantage is that email, social networking tools and other apps allow people to maintain bigger social networks and allow people to learn more about those in their networks. Richer social relations emerge from this greater awareness. Another advantage that it is much easier now to build communities on the fly via personal broadcasts. All these trends will continue to hold strong over the next decade.

- "The net is about people connecting online, for commerce, politics, and personally, and we already see that enhances real-life relationships. Location-based social networking, in particular, will be a big part of our lives." —Craig Newmark, founder and customer-service representative, Craigslist, former software engineer and programmer at companies such as JustInTime Solutions, Bank of America and IBM
- "The internet is a tool, one which reduces the costs of communications. I will have better awareness of all the people in my life who are important to me." —Hal Eisen, senior engineering manager at Ask.com
- "Today and tomorrow, my social reach is much wider as a result of the internet. I am able to communicate and 'experience' so much more with so many more than I could even two years ago. I don't like all aspects of the social net, but the reach is so much better. The social nature of the net allows us to be better informed about friends, and family than ever before. We will all be richer from it." —Michael Burns, co-founder and principal, i5 web works
- "The enemies of social connectivity are silence, disengagement, distance, and abandonment. In the past, how many individuals and families have suffered from these degenerative influences? Now we have the internet. High school sweethearts are reunited. Strangers meet and form personal unions. Families are brought together. Adoptees find reunion, too. Interest groups thrive. Businesses leap borders. Genealogies are learned, and one person in his lifetime can place himself into history, and comprehend his place in the span of time. On the internet, social alienation remains a factual force. But never before has a person had more opportunity for social integration. More than ever, being inside or outside now is a matter of personal choice." —Eric James, president of the James Preservation Trust and publisher of Stray Leaves, author and lecturer
- "I met my wife online, reconnected with my old school friends online, stay in touch with my family overseas online, and have a wide circle of close online friends. For those born in the internet age, this will be the norm. For those born before it, some will have

adapted by 2020 and some will not have." —Jeremy Malcolm, project coordinator, Consumers International, and co-director of the Internet Governance Caucus

- "The internet is communications gold mine. We can already find people with whom we've lost contact, communicate with people independent of time zones, hold simple video conversations, instant-message people. It already allows us to communicate in new ways. The trend I see only improves with time!" —David Moskowitz, principal consultant at Productivity Solutions, Inc., and lead editor of OS/2 Warp Unleashed
- "The internet has actually helped with human interaction by providing a wider range of ways to communicate such as Twitter and Facebook. These allow some interactions that are better *not* done face-to-face. And the internet frees up more time for social interaction by making things like shopping faster." —William Webb, head of research and development, Ofcom
- "This question has been probed since my days on The WELL and ECHO. Most humans are social. The use of the internet has done a lot to shrink the actual distance between family and friends and allows an expansion to new cultural experiences. The way we interact is always evolving and has impact on the drive for knowledge, understanding, and communication." —Tery Spataro, CEO and founder of Mindarrays Consulting
- "The cost-reduction mechanisms of sites like Facebook now enable me to maintain an incredibly broad and diverse set of relationships that provide me comfort and encouragement, expand my worldview, filter information, and give me feedback." —Cliff Lampe, assistant professor, Department of Telecommunications Information Studies and Media, Michigan State University
- "The internet breaks the shyness barrier in the beginning stage of every relationship." —Jorge Alberto Castaños, specialist in implementation of platforms at Botón Rojo
- "If – and I believe this will happen eventually – the tendency to make remarks and adopt positions you would never consider in person can be overcome, online society stands a very real chance of taking interpersonal relationships to a level never before possible. Balancing out the anonymity and lack of physical contact is the ability to mask a plethora of medical and psychological conditions that until now have proven serious handicaps to social interaction. No one stutters or stammers on Twitter." —Robert G. Ferrell, information systems security professional, US government, former systems security specialist, National Business Center, US Department of the Interior
- "It's now easy for me to find people who share characteristics or interests, whereas for much of my pre-internet life I mainly felt like I didn't fit in anywhere. Also, it's made it easier for me to find and interact with many types of people who are very different from me, giving me a wider range of experience. The classic example of how the net has positively affected my personal life is Meetup.com. I've gone to many real-world get-togethers coordinated through that service, and have made many friends that way. That, to me, blends the best of the net and the real world." —Amy Gahran, contributing writer at eMeter Corporation, senior editor at Oakland Local, co-creator and community manager at Reynolds Journalism Institute
- "My husband and I got closer together before marriage because of the internet, we always remain connected because of the internet and we will be never apart because of the internet :)." —Maliha Kabani, president, International Sustainable Development Resource Centre

- "Despite the media narrative, cultural relations and social engagement mediated by virtual spaces is a plus. At a minimum, it is an opportunity for complex dialogue with no opportunity for physical violence. —Joshua Fouts, leader of Dancing Ink, digital diplomacy expert, senior fellow at the Center for the Study of the Presidency and Congress, and founding editor of Online Journalism Review
- "As my adult children tell me, you never lose touch with anyone anymore." —Deborah Pederson, chief Learn & Earn Online Officer, North Carolina Virtual Public School
- "Humans are hardwired to connect and relate on a personal level. They need social validation and group membership. Technology and internet use will support people's interpersonal and social goals because social needs dominate all others." —Pamela Rutledge, director of the Media Psychology Research Center, instructor of media psychology at the University of California-Los Angeles Extension
- "As I have been finding for years, internet connectivity maintains, expands, and enhances friendships: both strong and weaker." —Barry Wellman, professor of sociology and Netlab Director, University of Toronto; author of research reports on online relationships
- "The internet has allowed for the growth of human connection, an enhanced psychological intimacy of net friends, that has led to strong and interesting relationships that form in months instead of years. It has allowed for the opening of dialog, discussion, and forums unlike anything since Greek times. It has allowed an individual to find others with the same likes, dislikes, and affinities (good and bad), to add organization where there was chaos, allowed individuals to face who they are and develop that person. Has it changed the basic institutions of community relations? Marriage? Hell, yes. For the worse, no? For the better? That waits to be seen. But it has allowed new frontiers to be explored in interpersonal 'relationships' (I have watched marriages flourish and grow because of the information the net has given. I have watched marriages crumble because of information the net has given. I expect that which does not kill us will make us stronger and better.) The internet and World Wide Web have allowed communities to come together on politics and issues in ways that would never have happened before. It has allowed the sharing of group knowledge and consensus in real time. It has been good." —Cameron Lewis, program manager, Arizona Department of Health Services
- "Facebook is making my internet less about virtual strangers who are friendly to being more about real relationships with friends. When you are a dog on a social network site people know you are a dog. Facebook has done this with an easy-to-use interface that most persons can use. I have been online every day since 1994; it was only with Facebook in 2007 that I could communicate with old friends online. Facebook made this possible for them, whereas I would have used anything. Without them I had a lonely internet. In the future more applications will bring more people together." —Peter Timusk, webmaster and Internet researcher, statistical products manager at Statistics Canada
- "The tension between the net and social engagement will vaporize in much the same way that thoughts about the telephone network vaporized and it came to be taken-for-granted. People do not ask if the telephone is an alienating social force. The phone is a utility supporting social life. Likewise, the net will come to be assumed as a utility for social life. How else would I know when church starts, when the game begins, where we are meeting for drinks, or what the weather for our trip might be?" —Robert Cannon, senior counsel for Internet law, Office for Strategic Planning and Policy Analysis, Federal Communications Commission, founder and director, Cybertelecom

On the other hand, these respondents are concerned that people's use of the internet for social connection does not often foster deep relationships of value, and it can be detrimental. Internet use can be distracting at times, as much as it can be enriching.

- "Social relationships cannot improve when people spend less and less time in face-to-face encounters." —Luc Faubert, president of dDocs Information, Inc., consultant in IT governance and change management
- "Social networking encourages people to have a greater number of much shallower friendships. Insofar as online interaction replaces real-world interaction, the internet is a negative force in the social world. I know what 15 of my friends had for breakfast, but I don't know whether any of them is struggling with major life issues. If this trend continues, people in 2020 will have hundreds of acquaintances but very few friends. However, acquaintancebook.com doesn't quite have the same ring to it." —Gervase Markham, a programmer for the Mozilla Foundation since 1999, based in the UK; won a Google/O'Reilly Open Source Award as the "best community activist" in 2006
- "The answer lies in looking at the schoolchildren. I see too many children using the internet, playing video games, etc., while at the dining table in public. These children have not been socialised to interact face-to-face. Unless such behaviour is pointed out and arrested, and they can be pointed out and arrested, the internet and the attendant activities on it will worsen social relations in 10 years time, when the poorly socialised children grow up." —Peng Hwa Ang, dean of the School of Communication, Nanyang Technological University, Singapore, and active leader in the global Internet governance processes of WSIS and IGF
- "I got involved in social networks as an adult. I wonder about younger people who haven't yet formed a solid web of real-life relationships or learned how to function in a meat-space social environment. I think there's a real downside there." —Reva Basch, self-employed consultant for Aubergine Information Systems; active longtime member of The WELL, one of the earliest cyberspace communities; author of internet books
- "What I already miss the most is personal contacts in the real world. Too much communications through the internet can damage real quality of life. I fear this will be worse in 2020." —Bernhard Adriaensens, professor at Solvay Brussels School of Economics and Management
- "By 2020, norms will have emerged to assist people in recognizing and resisting over use." —Robert Runte, associate professor at the University of Lethbridge

Both 2020 scenarios presented in the survey are accurate; new human connectivity through use of the internet is a blessing *and* a curse. Some existing research shows that internet use makes people more of what they already are: If they are extroverted, they can be more so with tech tools. If they are introverted, tech tools can make them more isolated. And the context of internet use matters a lot: tech lifelines in one set of circumstances can turn into tech choke collars in different circumstances.

- "Just think of it as new ways to meet – *and exploit* – human needs." —Seth Finkelstein, anti-censorship activist and programmer, author of the Infothought blog and an Electronic Frontier Foundation Pioneer Award winner
- "Two opposing forces are at play: Cocooning and Connecting. Cocooners talk only to their 'in' group and seek little exposure outside. Connectors listen widely and are heard

widely. I think the Connecting energy creates positive dynamics and overwhelms the Cocooning." —Jerry Michalski, founder, Relationship Economy eXpedition (exploring "the emerging order for transformation agents,"), founder and president of Sociate

- "Both answers are true. Spending more time online and being more wired to each other via various devices comes at the expense of real-time, deep, meaningful human interaction. But, when you're really busy and don't have enough time to see, call or visit with friends it's nice to use the social networking tools to be better able to keep tabs on or 'give tabs to' people in your social network." —Joshua Freeman, director of interactive services, Columbia University Information Technology
- "The internet's effect on relationships is paradoxical. It strengthens our relationships with distant friends and relations through social networks and email, but may damage the relationships of those nearer to us as always-on technologies and applications eat into family and social time." —Mary Joyce, co-founder, DigiActive.org
- "Will relations improve? Hell yes, for the smart people who figure out what the technology can and can't do for them!" —Mike Gale, director of decision-support systems, Decision Engineering Pty Ltd.
- "I could answer either way. I have an expanded circle of social connections, and stay in touch more. However, I also have less deep connections. It is interesting the number of developing adults that function well in a keyboard setting while failing at human interaction (e.g. can message and chat effectively, can't call on a phone or converse in person)." —Dave McAllister, director, open source and standards (OSS), standards, Adobe Systems, owner of OSB Technologies
- "The post-urban world is a return to the small town online, and the kind of life-long connections that go with it. For better or worse." —Alex Halavais, professor and social informatics researcher, Quinnipiac University; explores the ways in which social computing influences society, author of *Search Engine Society*
- "The internet has certainly changed social relationships, and will continue to do so, but I don't think the change is simply positive or negative. It permits relationships that wouldn't have existed otherwise. It keeps me in constant communication with my sister, my daughter, and a few friends who live far away. It discourages the intricate, intimate neighborhood networks that used to exist and I think we're the worse for that. In general, it's not better or worse, it's different. However, I should say that I wouldn't have missed it for the world." —Sylvia Allen, Ebisu Staffing
- "The internet has allowed communities of interest to flourish and prevail over communities of coincidental geographic proximity. While it leads to more otaku [surfing, playing video games, and watching anime alone] and grownups playing World of Warcraft, it also means fewer people getting in drunken fights in the parking lots of bars because they think someone looks odd. Net win." —Bill Woodcock, research director, Packet Clearing House, vice president with Netsurfer Publishing, co-founder and technical advisor, Nepal Internet Exchange and Uganda Internet Exchange
- "Certainly both good things and bad have happened to relationships because of the internet. I believe, though, that overall, the increasing ease of connection with people at a distance is improving social relations much more than the occasional gaffe or thoughtless act is harming them. Some discretion about what to do and say online is necessary, but that's simply a social more that needs to be worked out and understood – the tools are advancing quicker than the social etiquette around them. There will always

be people who damage their relationships spectacularly, and if the internet were not available to them, they would do it another way. The benefits far outweigh the drawbacks." —Rachel S. Smith, vice president, NMC Services, New Media Consortium

- "Once you eliminate outliers and freakish behaviors, the internet bestows tremendous opportunities for social growth on most people, in most circumstances. The internet creates a huge range of often-novel choices from which end-users construct their own adaptive behaviors. The important determining factors in personal friendships, marriages, and other relationships remain with the individual. Which isn't to say the internet makes no difference. It does. The internet facilitates anti-social behaviors like identity theft, and positive behaviors like keeping in close touch with relatives in faraway places, to such a degree that they become almost unimaginable in the pre-Internet age. My sense is that, once you eliminate outliers and freakish behaviors, the internet will continue to bestow tremendous opportunities for social growth on most people, in most circumstances." —David Ellis, director of communication studies at York University, Toronto, and author of the first Canadian book on the roots of the Internet
- "A synthesis of early research on this question has shown that, in essence, personal predilections will be enhanced once one goes online. Those who are social will become more so, that is, and those who are loners will deepen their solitude. I expect research on this question to show something different over time. The early question had to do with the question of whether there were *changes* in the behavior of individuals when they went online. Now that digital natives begin and continue online, this is no longer a meaningful variable." —Sandra Braman, professor in the Department of Communication, University of Wisconsin-Milwaukee, and expert on the macro-level effects of new information technologies
- "Context matters. It's not just the internet. It's the pace of change, the pace of life, the pace of work – all of which are accelerating, in part because of the net. But norms take longer to develop than technologies. And where you stand depends on your circumstances. For me, the net is a wonderful learning network and for some it is a lifeline and for others it is a tether to their boss or a source of harmful misinformation, disinformation, and distraction. Since when is the world starkly divided into either-or alternatives? For many, life will be alienated, rushed, and confusing because of their involvement online. Others will choose or will learn or be trained to cope with dangers of an always-on lifestyle." —Howard Rheingold, visiting lecturer, Stanford University, lecturer, University of California-Berkeley, author of many books about technology including *Tools for Thought* and *Smart Mobs*
- "The technology is simply as good or bad as human nature. One has only to look at the hype around #iranelection to see the capacity for giddy optimism to be supplanted by calculated abuse of power. The internet can be a positive force for creating reinforcing social connections, and a negative for abuse of civil liberties and increasing polarization of opinion." —Perry Hewitt, director of digital communications and communications services at Harvard University

Geography is no longer an obstacle to making and maintaining human connections. Emigration experiences are different now when it is easier to check back in with homeland folk. Old communities and longstanding ties need not be given up when people move to new communities and create new ties.

- "The internet provides a wide range of possible ways to build and further relationships with people around the world. There's little question that the internet makes it easier to maintain relationships that might otherwise be severed by distance. I spent half an hour this morning introducing my new son to one of my dearest friends – she lives in Budapest, and while she won't get to hold my child for another year, she's going to get the chance to see him grow up via Skype video. I can't see this making relationships weaker, only making them stronger." —Ethan Zuckerman, research fellow, Berkman Center for Internet and Society at Harvard Law School, co-founder, Global Voices, researcher, Global Attention Gap
- "In a globalizing world it is increasingly possible for individuals to keep in touch with loved ones via technology. In many ways I think communities will still be location-based, but the ease of providing information and communicating with each other will be possible on a global scale." —Janelle Ward, assistant professor, Department of Media and Communication, Erasmus University Rotterdam
- "Fifty years ago emigrants left their family and friends behind. Now people who move from one country to another simply enlarge their social networks, building truly global communities." —Hal Varian, chief economist of Google and on the faculty at the University of California-Berkeley
- "As an Irishman living in the United States for the past seven years, I have experienced firsthand the changing capacity of Internet technologies to support communication with faraway family and friends. IM, video chat, and Skype have all made my experience of emigration very different from previous generations of the Irish abroad. Looking to the future, I have no doubt that continued refinement of these technologies will continue to enhance our ability to keep in touch with family and friends from whom we may be physically separated." —Andrew Ó Baoill, assistant professor, Cazenovia College, and director of Scagaire, a public-interest policy group
- "My son away at school continues his relationship with his friends and family at home almost uninterrupted. My son in high school is as close in January to the friends he sees only in the summers as he is in July. Both have met and befriended people far away from our home. Sometimes their friends are in our house talking, watching TV or playing games. Other times they're somewhere else, but they're still talking, watching TV, or playing games together. They navigate the online social universe as easily as I drive my well-worn path to the office." —Walt Dickie, executive vice president of C&R Research
- "At a very personal level, the Internet has had a profound impact on my world. I have had the opportunity to celebrate joyous occasions, share sad news and grieve, and ask for (and receive) help. As an example, through a 'friend-of-a-friend' connection I was able to find urgent help taking care of my elderly mother (who lives four hours away) as she was diagnosed with Alzheimer's. Given the small town my mother lives in and my distance from her, I had been unable to find any help at all prior to posting a plea for help on Facebook." —Allison Anderson, manager of learning innovations and technology at Intel Corporation
- "The emphasis on ambient awareness of how people in your circle of friends are doing is fascinating. Some say that too many people are straying away from face-to-face relationships. I would disagree. The ability to connect through text, pictures, social networks, and games allows a level of social interaction that we just haven't had before. It will change the way we use certain tools (such as the phone) and how we connect, but

will allow us to stay more connected to friends and family who are no longer in our local area." —Elaine Young, associate professor, Champlain College

It's not just geography that has been reconfigured in the equation of human connection; the internet removes many constraints of space and time. Some of the current social patterns that are evident in suburbia or in workplace offices will not be as much in evidence in 2020 as technology reconfigures people's sense of presence.

- "The internet is best seen as a reconfiguration of space. The internet modifies traditional space so that existing places are extended in ways that allow us to stay aware, share and intersect with people with whom we are not in the same traditional space. The internet is the opposite of suburbanization: suburbs took us away from other people and locked us into houses; the internet opens a door from the house into a potentially shared place. That does not mean that physical presence is not important in relationships. Lack of physical presence is not the fault of the internet; rather, it stems from the way the world is configured (globalization, suburbanization, increased population, etc.) predating the internet. The internet replaced lack of physical presence with social presence." —Zeynep Tufekci, assistant professor, University of Maryland-Baltimore County and author of the @technosociology blog
- "The internet will be more integrated into all aspects of our social lives in the first-world countries. Communication channels that used to be via printed and telephone mediums will be transported to new online mediums, primarily accessed via mobile devices. Mobile devices with broadband access will become our primary source of connection; yet such mobility allows us to greater integrate our access to the web with our day-to-day 'corporeal' life activities." —Clement Chau, vice president at Ponte and Chau Consulting, Inc., and researcher in the Developmental Technologies Research Group at Tufts University
- "By the year 2020 we will have figured out the best use of social networks: liberating people from offices. We can better use it to facilitate work relationships so that people might spend more time in the physical presence of the people they love, or, at very least, in the company of clients rather than in the company of superiors. Almost all knowledge work can be performed anywhere. There's no reason why social networks can't replace offices, but a Twitter feed will never replace family, a neighbor, a real community. Recognition of that essential fact is the first step in using information technology to better connect families and sow stronger social and community bonds." —Patrick Tucker, director of communications, The World Future Society and senior editor, The Futurist magazine
- "People live in a blended reality involving online worlds and in-person worlds, and these worlds will continue to bleed over into each other more heavily." —Mary McFarlane, research behavioral scientist, US Centers for Disease Control
- "The internet will continue to bring people closer to each other. Instead of one-to-one relations, we can time-shift core information one-to-many and focus real time on deepening existing relationships." —R. Ray Wang, partner in The Altimeter Group, blogger on enterprise strategy
- "When I think of the big picture of social networking from the last decade, I think the intriguing aspect is how little give-and-take there has to be in terms of social capital. A decade ago, a finite number of connections and interactions offline meant that there was actually a high opportunity cost to relationships. We could have deep relationships, but there was a detriment to other types, even if they were surface or fringe connections.

Now, the social grid gives us the luxury to keep low-involvement relationships – past contacts, former classmates, etc. – together, but the serious friendships, spouses, those can continue at their high involvement." —Dave Levy, senior account executive and media trend researcher in digital public affairs at Edelman (public relations)

- "With the advent of the Web 2.0-enabled social web with applications such as Facebook, YouTube, etc., we allow all aspects of our lives to be shared with our selected friends and family without actually having to reach out and tell them what we're up to. By posting status updates, photos and videos online, friends and family can browse our lives on their own time and place and as often as they chose to. These technologies all me to keep everyone in the loop without me actually having to proactively keep everyone up to date." —Steve Ridder, enterprise architect, Cisco
- "The internet enables people to make more numerous personal connections, revive relationships, share common interests, and is a conduit where significant relationships can be supported and sustained. In 2009, UK Research showed that users connected to the Internet, are 'less lonely' than non-users. People are time-poor. The internet makes staying in touch easy; the sharing thoughts, feelings, experiences richer; and reaching out for new friendships and interests is a glue that ties us to the global community." —Sally McIntyre, principal online adviser in Australia's Department of Premier and Cabinet
- "The key value of the virtual space is its ability to transcend the standard rules of space and time, and connect that which otherwise could not be connected. This began with the telephone many years ago, albeit with a very small 'social bandwidth,' but with the rise of the internet this social bandwidth has increased many times over, allowing us to add much more than just speech to our one-to-one connections. As the internet matures even more, and even greater real bandwidth is possible, so the ability to enrich these connections can only grow and grow as our social bandwidth grows with it." —Rich Osborne, Web manager and Web innovation officer, University of Exeter

Actually, we *lose* time online – time that could be, should be spent on our relationships.

- "The struggle of being present with the important people in our lives will only intensify by 2020. While I love technology and know that it has expanded the amount of connections I can have and strengthens certain relationships, I also think that by 2020, the idea of turning off technology is going to be the equivalent of trying to stay dry when you are underwater. And I think relationships require uninterrupted time. They require being present. They require attention. And the more immersive our world will be by 2020, the negative result of this constant interruption with people we truly care about will be only harder as we are pulled in even more directions. It will be the ultimate test to see if we can give our relationship what they truly need to grow. Time. Uninterrupted." —Tiffany Shlain, founder of the Webby Awards and co-founder of the International Academy of Digital Arts & Sciences, filmmaker, director of the Moxie Institute
- "The internet – and in a larger sense, the harried, multitasking-dependent modern lifestyle – doesn't generally foster the kind of deep social interactions necessary for serious relationships. There are exceptions, of course: Witness the (apparent, anecdotal) success of online dating sites. This isn't to say that social relationships necessarily require face-to-face interaction. Think of the great relationships of old carried on through postal mail correspondence. Instead, it's the internet's encouragement of an existence marked by distracted, 'continuous partial attention' (from Linda Stone) activities, and

interactions that is at fault here. For the majority of internet users, the net is unlikely to help them foster significant social relationships, and as it grows ever more central to our lives, that's unlikely to cease." —Christopher Saunders, managing editor, InternetNews.com

- "While the Internet has enabled me to keep richer relationships alive over large distances via tools like IM and videoconferencing, I also find myself deluged with gumption traps and triviality, which can reduce the amount of time and energy I spend on deep, face-to-face relationships. I'd say that on the whole, the internet has made my relationships richer, but it is in no way a replacement for real-life physical interaction." —Dave Sifry, founder, Offbeat Guides, founder, Technorati, co-founder, Sputnik, co-founder, Linuxcare, Inc.

It is possible that these new ways to interact will perhaps inspire more tolerance and global understanding.

- "More gradients of friendship are enabled through online social networking, meaning it's more likely you will retain some degree of connection or friendship with a broader cross-sector of the population, leading to more harmonious human relations nationally and internationally." —Solana Larsen, managing editor, Global Voices Online, former editor of openDemocracy.net
- "There are risks, but the fact that it enables us to escape many of the constraints of geographic happenstance seems likely to be a net positive, along with our exposure to greater diversity. The internet should build tolerance through greater exposure and understanding, and tolerance should improve human and community relations." —Jonathan Grudin, principal researcher in human-computer interaction and computer-supported cooperative work at Microsoft Research
- "The internet represents an unprecedented opportunity to improve cross-cultural understanding and tolerance around the world. We just need to make the infrastructure ubiquitous and affordable. Perhaps governments should take control of the world's communications systems (wow) and run them as public services to ensure public access. The only issue here would be censorship. I firmly believe that differences tend to dissolve as people come into contact and interact with each other, dissipating stereotypes." —Robert Hess, senior fellow at the Center for the Digital Future, Annenberg School, USC, and president and CEO of TSG (a consulting firm)
- "We should hope that the net makes us more connected, more social, more engaged and involved with each other. The human diaspora, from one tribe in Africa to thousands of scattered tribes – and now countries – throughout the world, was driven to a high degree by misunderstandings and disagreements between groups. Hatred and distrust between groups have caused countless wars and suffering beyond measure. Anything that helps us bridge our differences and increase understanding is a good thing. Clearly the internet already does that." —Doc Searls, fellow, Berkman Center, Harvard, fellow at Center for Information Technology and Society, University of California-Santa Barbara; co-author of *The Cluetrain Manifesto*
- "Any facility which brings people together in love and friendship, and enables love and friendship over greater distances and over greater boundaries, can only ever be a good thing. By 2020, integrated social networking, cross-national and cross-cultural dialogue, and internet-enabled friendships will be some of the great arguments for the social good of the internet." —Francis J.L. Osborn, philosopher, University of Wales-Lampeter

- "The internet allows us to develop a worldwide awareness consciousness. We are still at the 'self' stage, where we want the world to know who we are, but soon we will move to a we + me stage, where we will make connections that debate, share, and build." —Brian Prascak, chief innovation officer, InReach Commerce, Inc.
- "The web is enabling 'connected' people to have a better understanding of each other and our unique contexts, which helps communication." —Paul DiPerna, research director at Foundation for Educational Choice, conducting surveys, polling, Internet/social media projects
- "There will be, of necessity, a greater need for humans to better understand what is going on in the world and to be ready to influence decisions made on their behalf. The internet will be the mechanism for allowing the necessary interactions." —R.L. Monroe, retired after 35 years in the US Department of Defense

It is possible that these new ways to interact will allow people to silo themselves and incite more intolerance or dangerously limit people's worldview.

- "The internet helps me maintain contact with a greater number of people. But it also makes it easier for me to retreat within a form-fitted political, religious, or social landscape. It's when we find ways to work with people with whom we disagree that society progresses. The internet makes it easier for me to avoid disagreement and compromise and encourages me to become more strident and polarized in my views. That's a problem." —Tim Marema, vice president of the Center for Rural Strategies
- "I'm with the likes of Cass Sunstein (Republic.com /Republic.com 2.0) on this one: The ability to narrowcast on the internet and the tendency for netizens to hang out exclusively with their own tribe combined with the literal disappearance of mainstream mass media will, I believe, be a negative force for all sorts of relations – maybe not so much family relations, but certainly other social relations. Mass media once served a role as a kind of community commons where one might be exposed to opinions/thoughts/events that would enlighten, enrage, repulse, thrill, or inspire you. We learned about things we would never think of querying a search engine about. I don't see any site replacing the 'commons' role that a community newspaper served. In fact, I think online publishers – desperate to pay the bills – will use software agents, cookies, etc., to make sure that their users see exactly what they want to see, and what they want to see, I suspect, will be information that will tend to reinforce a worldview, not challenge it." —David Akin, national affairs correspondent, Canwest News Service

As the use of the internet for social networks expands, the rapid evolution of connection is altering and redefining many things. "Virtual friends" will become more common in the future. New definitions of traditional notions will emerge as people recast such ideas as "friendship" and "privacy."

- "We will have more interpersonal relationships while sitting alone in the room. They will feel, and be, rich in many ways – other than touching." —Stewart Baker, general counsel to the US Internet Service Provider Association, former general counsel for the US National Security Agency
- "There's no escaping people anymore, and I believe that will yield better relationships." —Jeff Jarvis, author of *What would Google Do?* and associate professor and director of the interactive journalism program at the City University of New York's Graduate School of Journalism

- "New definitions of 'friendship' and 'privacy' will emerge. Neo-tribalism will start to replace nuclear families, although this will be considered illegitimate and immoral by old-timers." —Stowe Boyd, social networks specialist, analyst, activist, blogger, futurist and researcher; president of Microsyntax.org, a non-profit and director of 301Works.org
- "The way we define the word 'social' will have changed, much as how the meaning of the word 'friend' has already changed as we end 2009." —Neville Hobson, head of social media in Europe for WCG Group and principal of NevilleHobson.com
- "Virtual parties, in which participants 'hang out' with friends via video conference, will become popular as a way for people to get together (and avoid risks associated with real-life parties, such as drunk driving and STDs)." —Chris Minnick, independent information technology and services professional
- "SNS and other internet-based communication tools have created new social circles and new categories of relationships, expanding the possibilities for contact and connection. The depth of these connections generally by platform, location, or group e.g. Facebook friends are at one depth, connections made through dating sites at another, while in-person connections are at yet another level of intimacy and relationship depth." —Stephan Adelson, president of Adelson Consulting Services and founder of Internet Interventions, a company that promotes health and patient support
- "Ships and airplanes can be argued to be tools engendering either separation or closeness. Why should the internet be any different? I am continuously amazed at the ability of people to adapt the net to improve their interpersonal links. My larger concern is, again, with education – that we need to emphasize the liberal arts, theatre, literature, and the like so that we can learn how to express ourselves and understand one another. The art of politics, which I believe will become an increasingly important art as we try to solve difficult problems, requires considerable ability to express and understand, and to have empathy with foreign cultures. The net will be a tool, but we need to teach ourselves how to be good users of that tool." —Karl Auerbach, chief technical officer at InterWorking Labs, Inc.
- "My guess is that people who only make friends in person will be seen as socially handicapped." —Charlie Martin, correspondent and science and technology editor, Pajamas Media, technical writer, PointSource Communications, correspondent, Edgelings.com
- "It's hard to turn down a 'friend' request on a social network, particularly from someone you know, and even harder to 'unfriend' someone. We've got to learn that these things are OK to do. And we have to be able to partition our groups of contacts as we do in real life (work, church, etc.). More sophisticated social networks will probably evolve to reflect our real relationships more closely, but people have to take the lead and refuse to let technical options determine how they conduct their relationships." —Andy Oram, editor and blogger, O'Reilly Media
- "Deep relationships, the kind that stand the test of time and adversity – will become increasingly difficult to form and maintain. We will be more connected to the world than ever before, but in far less meaningful ways. I believe this disintegration of interpersonal relations will spawn counter-cultural movements that might seriously resemble Amish or Mennonite communities. These enclaves will appear to outsiders as confused and befuddled, but will offer their members a rich and rewarding human experience." —Daniel Weiss, senior analyst for media and sexuality at Focus on the Family Action

- "The quality of personal relationships will continue to be based upon the work people put into their relationships – not the technologies involved in communications. It will be possible for people to have lots of contacts with a very large 'network' and have very few quality relationships. This possibility will lead to several new psychological and medical syndromes that will be variations of depression caused by the lack of meaningful quality relationships. And it will also be possible for people to have more quality relationships with a more diverse population – including close relationships with people geographically and temporally distant. Our notions of household and community will have to change to accommodate this phenomenon and our laws regarding families and households will also have to change." —Benjamin Mordechai Ben-Baruch, senior market intelligence consultant and applied sociologist, consultant for General Motors
- "As people find the balance with online and in-person socialization, the social net will enhance their lives and bring greater understanding to the world. People will maintain an 'inner circle' of relationships that will primarily be in person, while staying connected with people around the world through various forms of the social net. This will allow the average person to gain a greater understanding of the world from the eyes of other average people from different countries and cultures. Governments will need to adjust to this new world society." —Tom Golway, global technology director at Thomson Reuters and former CTO at ReadyForTheNet

There are some 'digital divides' when it comes to the new realities for tech-connected people. The most obvious difference in the tech realm is tied to age. Younger users are simply different in their use of tech and their approach to social relations from older users.

- "Generation M, born after 1982 – mobile, multimedia, multitasking – are already showing their distinctive differences. One of these differences is the advent of the supercommunicator. There is growing evidence that the internet *augments* physical relationships rather than displaces/replaces them. We do have to worry about the digital divide risk though. It is critical that we focus on inclusiveness as we drive this forward globally." —JP Rangaswami, chief scientist, British Telecommunications
- "For digital natives there will be fewer negatives and more positives than for their parents and grandparents (digital immigrants). Social life is *changing*, and most who perceive a downward trajectory are those who see their own culture vanishing. For my kids and their friends, social life *depends* on digital networking." —Peter Suber, fellow, Berkman Center at Harvard Law School, visiting fellow, Yale Law School, open access project director, Public Knowledge, research professor of philosophy, Earlham College
- "It has been a positive force only with those in my social circle who have embraced it; I've met new people and developed wonderful friendships. With those who do not embrace it, or refuse to, it creates *huge* conflict." —Beth Gallaway, library consultant and trainer, Information Goddess Consulting
- "The internet has changed the social communications norm, and people who don't use the Internet will become socially and technologically marooned. I have met more people face-to-face as a result of the internet than I did before the internet." —Robert Lunn, principal of FocalPoint Analytics and senior researcher for USC Annenberg School Center for the Digital Future, formerly director of surveys at J.D. Power and Associates
- "Using the internet for socializing depends on whether or not you like to read and write. Some people don't use it simply because they are hunt-and-peck typists, but that will not

be the case in the future. Others just don't like to read or write, and for some of them, the short communications will be their only use of the internet. For some of us, it is much easier to express ourselves in writing than it is to talk about issues." —Sandra Kelly, market research manager for 3M Company

- "The internet enables many new types of communication, and simplifies and accelerates many existing ones. Misunderstanding these new tools can indeed be very harmful, but as the technologies continue to mature and be understood be increasingly wider swaths of the public, most people will learn to use them in ways beneficial to their social life." —Nick Violi, research assistant, University of Maryland
- "No force can make my kids 'friend' me on Facebook. Maybe this is a 'positive' in their twentysomething social world, but it's a 'negative' in mine. Maybe this will change when my kids hit thirtysomething." —Greg Jarboe, president and co-founder, SEO-PR, Search Engine Watch Blog, Market Motive, ChannelOne Marketing Group

Criminals, terrorists, governments, and commercial interests may have a negative influence on the evolution of social networks between now and 2020.

- "A number of clear dangers remain, chiefly, the abuse of social media to promote populist and disruptive agendas and ideologies; the increasing corporatisation and astroturfing of social media spaces; the exploitation of personal information made public through social media by criminals and overzealous law enforcement agencies. On balance, social media spaces and communities have, to date, remained remarkably resistant to such interference, but there are no guarantees that this will continue. But social media also enable their users to organise to combat infringements and interference, and this is a cause for optimism." —Axel Bruns, associate professor of media and communication, Queensland University of Technology, and general editor of Media and Culture journal
- "[The positive possibilities] will only grow more true in the future as long as a significant part of the internet's core remains in the public domain – not the plaything of purely-commercial interests nor at the mercy of the whims of states." —David Pecotic, officer, Australian Broadband Guarantee Policy Section, Australian Broadband Guarantee Branch, Department of Broadband, Communications and the Digital Economy

We are just beginning to address the ways in which nearly 'frictionless,' easy-access, global communications networks change how reputations are made, perceived, and remade. New social norms will be encoded eventually to take account of these changing realities.

- "For better or worse, reconnecting and maintaining relationships has gotten easy to the point of nearly becoming frictionless. I do wonder if the American procedure that says 'Try hard, fail, move West, try hard, fail, move West, try hard, succeed, stay here' will change." —Paul Jones, conference co-chair, WWW2010, clinical associate professor, School of Information and Library Sciences, University of North Carolina at Chapel Hill, director, ibiblio
- "Some people thrive in small towns, others feel oppressed by them. As information technology shrinks our world, it will become easier for one's misdeeds to return to them or for outbursts of regrettable behavior to be reported and shared. It will also be easier for good deeds to be shared. For better or worse, technology makes the citizenry its own Big Brother. Some will welcome this as transparency; others will feel oppressed." —

Stuart Schechter, researcher, Microsoft Research, formerly on the technical staff at MIT Lincoln Laboratory

- "It will be particularly interesting to see how we reconcile things about the people we know that we had not known in the past, or could not have known. How many of our friends will in some sense 'come out of the closet' on some issue or other by joining a group on Facebook, for instance, that might make us upset or angry, and what we will we do with that knowledge?" —Steve Jones, professor of communication and associate dean of liberal arts and sciences and co-founder of the Association of Internet Researchers, University of Illinois-Chicago
- "It is key that we sort out the sort of contextual self-presentation online that we presently take for granted offline. This will involve the hybrid of sociological and psychological insights alongside traditional design. How do we present ourselves to co-workers and high school friends without pandering to a lame lowest common denominator? In doing so, I think we can strengthen our relationships by creating increased spaces for differentiated expressiveness. I worry about absolute searchability, however, as I think it will draw people away from the Internet as a positive force. It will tie us together, but I think it will also make our relationships a little more dull." —Bernie Hogan, research fellow, Oxford Internet Institute, University of Oxford
- "A lot depends on our success at the societal level in addressing online disinhibition, modeling online/offline citizenship for our children, and getting past the adults' technopanic to teaching tech literacy, media literacy, and social literacy at home and school." —Anne Collier, co-chair, Online Safety & Technology Working Group, founder of Net Family News, co-author, *MySpace Unraveled: A Parent's Guide to Teen Social Networking*
- "As a society we will grapple with how to best use these tools to strengthen human-based social ties – and some will be better at it than others. Issues like privacy will need to be addressed, but individual and structural strategies will emerge." —Jim Witte, director and professor, Center for Social Science Research, George Mason University
- "Those who do adopt social media will prefer and demand transparency in their dealings – or become more sophisticated and deliberate about what they publish online about themselves and about others. When Facebook is apparently connected to 60% of divorces these days (http://www.telegraph.co.uk/technology/Facebook/6857918/Facebook-fuelling-divorce-research-claims.html), it's clear that both access to 'temptation' as well as the transparency that Facebook brings is causing people to confront issues that they previously were able to ignore or squirrel away. I think that's a good thing, and healthy thing. I think there's often too much distortion in people's relationships today. Still, the question remains: are we ready for a transparency society? And, how will we cope with those who share a lot about others, but not about themselves? Perhaps people will self-select and naturally gravitate towards people who have similar sharing tendencies. Others may rebel and head towards one of the two extremes. Still, the basic fabric of human connections is being enhanced through openness and transparency even if it's unclear how this will all play out over the next 10 years." —Chris Messina, open web advocate, Google, board member, OpenID Foundation

Leveraging the internet to cultivate social connection exposes private information. Thus, there will be new incentives for people to stratify their social networks so that the appropriate personal disclosures are made to the right people.

- "People will start being less forthcoming with their personal information online due to privacy/marketing fears." —Michael Zimmer, assistant professor of media, culture and communication, School of Information Studies, University of Wisconsin-Milwaukee
- "The internet enables personal 'customer-relations management' on multiple simultaneous levels. The more we use social media, the more sophisticated and discerning we'll become in structuring access, privacy, and content access. But the internet will be a central time and contact management tool into the indefinite future." —Daniel Flamberg, blogger at iMedia Connections and senior vice president of interactive marketing at Juice Pharma Advertising
- "Social relations will stratify into very distinct circles or 'orbits': Current face-to-face family and friends, distant family and friends well known (previous face-to-face relationship), acquaintances (briefly known), and then cyber relationships. Cyber relationships (friends, fans, followers, followed, connections, etc.) overlay the real-world relationships, for better or worse. But the most important thing they bring is exposure to a wider circle of potentially relevant people. This is in exchange for a potential loss of personal privacy and public image. Generally speaking, I believe the gains of great exposure and discovery of new cyber-relationships that then grow into face-to-face relationship that are productive and rewarding will continue to be a benefit of the internet." —William Luciw, managing director at Viewpoint West Partners and director at Sezmi, Inc., formerly a director of products and stand–up philosopher at several other Silicon Valley companies
- "By 2010 privacy as it had been known for the previous 100 years was gone. Everything that could be known about personal life was known through either voluntary sharing by increasingly transparent generations of humans or invasive external forces (government, business, religion, health care, and other humans known and unknown). Personal life will both be enhanced and deterred by the omnipresence of computing capability. All personal decisions will be recorded somewhere. The 'unseen force' will always be present as a third party in all relationships. Between 2010 and 2020 revelation of this fact will make its way into the normative structure of human social life." —Stephen Steele, professor, sociology and futures studies, Institute for the Future, Anne Arundel Community College
- "It will become difficult to hide and be forgotten, which is rather scary. We will learn to value our privacy." —Charlie Breindahl, webmaster and lecturer, Danish Centre for Design Research

Advances in technology between now and 2020 will continue to extend social possibilities. Most of the change will occur in social networks with relationships that are more casual and weaker – not among those with the strongest personal ties.

- "The development of holographic displays and the bandwidth necessary to carry them will allow us to spend more time in more contexts with our friends." —Fred Hapgood, technology author and consultant, moderator of the Nanosystems Interest Group at MIT in the 1990s, writes for Wired, Discover and other tech publications
- "Social networking has had a very positive impact on my social life in that it has allowed me to remain in touch and reconnect with friends and family in a way that otherwise

would not happen. Being able to take a peak into their daily lives, maintain accurate contact information, and share snippets of our lives through photos, video, etc. has been very positive. Improved broadband and other technology will allow us to take these social networks to new levels with more multimedia tools that make these connections more personal." —Jamie Wilson, writer/journalist and web application developer

- "In general we have three circles of friends and family: immediate (siblings and best friends), social (neighbours, bowling league, etc.), and collegial (business associates, co-workers, etc.). While the internet has had little impact on the first two circles, it has had a huge impact on third circle of collegial acquaintances. The impact has been so great that we desperately need tools like MIT's Sixth Sense to keep track of all these contacts when we meet them in the real world." —Bill St. Arnaud, chief research officer at CANARIE, Inc., and member of the Internet Society board of trustees
- "By 2020, individuals and organizations will have available highly secure and trusted quantum/biometric security plus powerful collaborative visualization decision-based tools plus powerful new tools to create user-generated content plus permanent/trusted/unlimited cloud archive storehouses plus incentive and attribution mechanisms. Friends, communities, and like-minded strangers will collaborate to solve the world's pressing problems, explore new frontiers, create entertainment spaces, and become more intimate. Today's social networks are decrepit in that they are intrusive, trust-levels concerning security and privacy are still questioned, they provide paltry few tools to encourage collaborative problem-solving, advocacy or entertainment creation and have no ways to incent or attribute participants in such endeavors. That will all change significantly by 2020. Intimacy will dramatically increase as collaborators solve problems and are incented and respected as contributors." —Steven G. Kukla, product planner, shared no additional work details
- "By 2020, the concept of building and nurturing relationships outside the physical realm will be fully integrated into human behavior. To our advantage, this web-based social structure will be free of the novelty that drives today's practitioners to obsessively text, twit, and gather. In place of manic distraction, the employment of audio-visual internet connections will gravitate toward balance and practicality." —Ebenezer Baldwin Bowles, founder and managing editor of corndancer.com, an independent online journal and cyber community, writer, activist and teacher
- "Over the last 20 or 25 years of participation in online communities, I've found the connectedness to be a great equalizer, removing socioeconomic status bars and permitting instantaneous communication and sharing of media with anyone who shares an interest. I see no reason to think that the flow will be reversed in the next 10 years, or in the decade after that. Today's trend of email replacement by messaging (think Twitter and SMS) will continue, although email will still be useful for file sharing and interpersonal correspondence. I hope that the walled gardens like Facebook will have passed away, and that open networks of friends and colleagues will be enabled by semantic web tools in public-domain services." —Frank Paynter, Sandhill Technologies, LLC
- "Nothing ever competes with 'personal' interaction. Face-to-face, but visual and virtual communications will leap far beyond the klunky and kludgy communications methods now in place." —Dean Landsman, president of Landsman Communications Group, board member at TeleTruth and participant in project VRM

- "Most of the research shows that social networking tools help expand the range of weak ties while not affecting the strong ties. But mobile communications has already had a huge positive impact on the strong ties – we stay in much closer contact with our family members and close friends than ever before. I envision a world in which these tools will give us more or less all the capabilities that in mythology were attributed to telepaths – we'll be able to transmit thoughts more or less instantly to as small or large a group as we choose. There's not way to predict what we'll say though, so its hard to forecast whether that will be a good or bad thing." —Anthony Townsend, director of technology development and research director at The Institute for the Future

Our tools are changing quickly, but basic human nature seems to change at a slower pace. Technology amplifies people's existing tendencies; it doesn't change human nature.

- "Communications are better, relationships can get better with communications, but we still are evolving, dirty, little mammals and have the ability to do all the wrongs things with the best of technology. The internet is a huge improvement over previous communications and media technologies – it has not stopped us from hurting each other. Life is a lot more convenient." —Glenn Edens, technology strategy consultant, formerly senior vice president and director of Sun Microsystems Laboratories, chief scientist at HP, president AT&T Strategic Ventures
- "I don't believe the internet makes us better or worse people, but I do believe it has an amplification effect on the best and worst parts of our nature. I think that by 2020 people will learn how to fit a relevant, manageable stream of social information into their lives in a way that, on balance, makes them feel more connected. There will continue to be negatives to internet-based relationships – they will offer a false sense of connectedness to people who are unhealthily isolated, they will enable connections that will ruin marriages, they will lead to new forms of harassment and bullying – but these are human problems, not internet problems. The benefits of staying connected to old friends, family and colleagues will outweigh these negatives." —Matt Gallivan, senior research analyst, audience insight and research, National Public Radio (US)

About the Pew Research Center's Internet & American Life Project

The Pew Research Center's Internet & American Life Project is one of seven projects that make up the Pew Research Center, a nonpartisan, nonprofit "fact tank" that provides information on the issues, attitudes and trends shaping America and the world. The Project produces reports exploring the impact of the internet on families, communities, work and home, daily life, education, health care, and civic and political life. The Project aims to be an authoritative source on the evolution of the Internet through surveys that examine how Americans use the internet and how their activities affect their lives.

The Pew Internet Project takes no positions on policy issues related to the internet or other communications technologies. It does not endorse technologies, industry sectors, companies, nonprofit organizations, or individuals.

URL: http://www.pewInternet.org

About the Imagining the Internet Center at Elon University

The Imagining the Internet Center's mission is to explore and provide insights into emerging network innovations, global development, dynamics, diffusion and governance. Its research holds a mirror to humanity's use of communications technologies, informs policy development, exposes potential futures and provides a historic record. It works to illuminate issues in order to serve the greater good, making its work public, free and open. The center is a network of Elon University faculty, students, staff, alumni, advisers, and friends working to identify, explore and engage with the challenges and opportunities of evolving communications forms and issues. They investigate the tangible and potential pros and cons of new-media channels through active research. Among the spectrum of issues addressed are power, politics, privacy, property, augmented and virtual reality, control, and the rapid changes spurred by accelerating technology.

The Imagining the Internet Center sponsors work that brings people together to share their visions for the future of communications and the future of the world.

URL: http://www.imaginingtheInternet.org

Methodology

The survey results are based on a non-random online sample of 895 internet experts and other internet users, recruited via email invitation, Twitter or Facebook from the Pew Research Center's Internet & American Life Project and the Imagining the Internet Center at Elon University. Since the data are based on a non-random sample, a margin of error cannot be computed, and the results are not projectable to any population other than the experts in this sample.