Transcript of Episode 61 – Howard Rheingold on Our Digital Past & Future

> The following is a rough transcript which has not been revised by The Jim Rutt Show or by Howard Rheingold. Please check with us before using any quotations from this transcript. Thank you.

Jim: Today's guest is Howard Rheingold, one of the founding fathers of writing, and thinking and analyzing deeply the network world phenomenon, and he goes way back to about the beginning of it. He's written numerous books, several of which we'll discuss today and, as usual, any books, articles, or organizations we talk about on the podcast will be available on the episode homepage at JimRuttShow.com. That's JimRuttShow.com

Jim: Howard has a very long and interesting career, which we'll hit many of the points along the way, but one that's quite distinguished is he is a Distinguished Fellow at The Institute for the Future. He's also taught at Stanford and Berkeley and, as we'll talk about, has done many other interesting things.

Jim: I'd also like to call out that Howard, listed as Howard Rheingold, is on Patreon. I support him, I suggest you do too. He's one of the treasures of our age. So, Howard, long strange journey, huh? As I read on your bio, you got your first computer. I think I got mine, in fact I know I did, I got mine in 1980. It said you plugged it into the telephone in 1983 and got sucked into the net. Why don't you tell us a little bit about that early use of both the computer and then the net and how the without things kind of worked together for you?

Howard: Well, the whole thing started because I was tired of using a typewriter. At the point that I got a computer, I had been using a typewriter for 10 years. I had graduated to a correcting electric typewriter, which meant that you could type white over the last line that you typed. But if you're writing articles, you're writing books, you mark up your page a lot and then you got to retype the whole thing. I heard a rumor that people were using computers to write with

and that you could move words around on a screen.

Howard: It wasn't easy to find it. Actually, I went out to Apple, which was two buildings in, I guess, in the late-1970s, early-1980s, and there was a fellow there by the name of Jef Raskin who actually was a person who initiated the Macintosh Project a little bit later. He said, "Well, you're probably not going to be able to use an Apple because the founders believe that people are only going to use it for programming in BASIC and playing games and you don't need the hardware for lowercase letters."

Howard: But then I read an article. It was in the 1977 Scientific American called Microelectronics and the Personal Computer by Alan Kay. I recommend that to everybody to see what the original vision of personal computers was. Alan Kay had been working at a place called PARC, Xerox Palo Alto Research Center. I was living in San Francisco about a half hour drive away, so I bugged them until I got some work writing articles about them. That's sort of another story.

Howard: At PARC I ended up walking around finding interesting people to talk to and interview and then Xerox would find ways to place those articles. I ran into a person by the name of Bob Taylor. It's not a name that's extremely well known, but he was extremely important in the creation the Arpinet and personal computing. He was the person who had funded Doug Engelbart and so I interviewed him. If people want to really hear an interesting story by an interesting guy, go look up the interview he did at the University of Texas in Austin with John Markoff. It's on YouTube.

Howard: Anyway, meeting Engelbart really completely turned my life around. I realized that these machines were not just better typewriters, they were mind amplifiers. His 1962 article on Augmenting Human Intellect really connected with me. I was not that interested in electronics, but I was interested in an overarching look at technology. I was very interested in the mind and in mind expansion and this connection between this new personal computer technology and the ability to enhance the way you think and communicate was very exciting to me.

Howard: At that time of early 1980s, a lot of the talk was about the young Bill Gates and the young Steve Jobs and people really didn't know about Bob Taylor and Xerox PARC, Alan Kay, Doug Engelbart, and even Alan Turing, John von Neumann, there was a whole story to be told, the old saw about standing on the shoulders of giants. These were giants standing on the shoulders of giants, standing on the shoulders of giants.

Howard: I wrote a book called Tools For Thought and, in the process of writing that book, I got a modem and I started exploring the online world which, at that time, consisted of BBS's, which were mostly in teenage boys bedrooms. They took their one telephone line and plugged

it into it. One person at a time could log in and type and see what other people had written. There was always just one thread and it was pretty exciting.

Howard: At that point I read that there were tens of thousands of BBS's in the United States. I think that really influenced the online culture. There were a lot of people who were already turned on to communicating this way, even though it was really, really slow and all you saw were words on a screen very slowly. I experimented with The Source, but it was something like $20 an hour.

Jim: It wasn't quite that bad, Howard. I actually worked at The Source in the beginning.

Howard: Oh, yeah?

Jim: I tell the story about The Source quite often on this show. I'll tell a little bit about it right now. We can hope back in. As you said, it was text modem, but it had most of what we have on the web today. We had email, we had bulletin boards, we had chat, we had, by 1981, we had a precursor to social media called Participate, we had shopping, we had stock prices. But yeah, it was expensive and it was slow. I would say it was more like $10 an hour, but that was $10 an hour in 1981 dollars, which would be about the equivalent of $25 or $30 an hour today.

Jim: People sometimes ask me, "Why would anybody do that for $30 bucks an hour? For the equivalent of $30 an hour, but $10 an hour in the current currency then, for character mode only, maybe 300 bought or 1200 bought if you could afford it. That answer was, "Because there was nothing else like it. It was the only network email in the world." Then CompuServe came along. There was very interesting pre-Internet era which, of course, billboards were also a very interesting part. I just thought I'd hope in on that.

Jim: Why don't you get back to your story?

Howard: Well, I actually hung out on Participate and there was a guy there by the name of Sourcevoid Dave.

Jim: Oh, yeah. Dave Hughes. He was Dave Hughes.

Howard: Dave Hughes. Of course, we later encountered him on the WELL and Dave Hughes was an older guy, he must be in his 90s now. I'm sure he's still alive because I haven't heard that he's not. Dave was a pretty vocal voice online. So then this thing called the WELL got started in 1985 and it was started by the same people who had done the Whole Earth Catalog, Stewart Brand and Larry Brilliant had started it. I joined, oh, I guess about four months after it started and it was tremendously exciting to me.

Howard: Again, just words on a screen. It was really slow. These were the days of 24 mod

modems and the server was so slow that you could login, go make a cup of coffee and come back and you would be ready. The words went across the screen very, very slowly, but it was very exciting.

Howard: As a writer, it was exciting for several reasons. For one thing, I was alone in a room. Place like New York, I guess writers hung out in bars, but suburban Marin County, California, that really wasn't an option for me. But here I could write for a while and then I could go hang-out with these people online and it was like writing as a performing art, and it was like writing as a group performing art. I was just tremendously interested in it and also interested in the network of people.

Howard: One of the things that I think was useful about the WELL that it started with the Whole Earth Network, which was kind of diverse, particularly for the time. Most of the people online back then were men, but on the Whole Earth electronic link a good percentage of them were women. It was mostly white, but not entirely white.

Howard: It was schoolteachers, and engineers, and writers, a lot of people who later turned out to be technology correspondents like John Markoff of the New York Times, Steve Levy from Rolling Stone and WIRED, all hung out in the media conference there. It was like a watering hole for people who were interested in what was going on with technology.

Howard: That's what got me really interested in following what was happening. Again, I wasn't a technology guy, but it seemed to me that this was a new communication medium that had some characteristics that no communication medium had ever had before. I was excited about that.

Howard: I wrote a story for Whole Earth Review in 1987 on Virtual Communities and I talked about how I could get to know people and know what they were interested in. And if I came across things that I knew would interest them, I could send that their way and if they knew what I was interested in then they could send things my way.

Howard: And this, I think, is one of the more interesting characteristics of online is if you really cultivate a network of people who you think are interesting and who think what you have to say is interesting, and you feed that network by giving people information that you come across that might be useful to them. They will feed you back.

Howard: I have found that for everything I give away online, I get 10 times back. That was exciting to me. It was writing as a performing art, but it was also this online think-tank which we were all kind of consulting to each other. I tried to get a book proposal. I mean, I got a book proposal, but it took me four or five years to get a book contract and I was told that publishers believed that only electrical engineers would use computer networks to communicate with.

Howard: But I wrote The Virtual Community in, I guess, 1992. It was published 1993. I had not really traveled very much before then, but I went around the world and I hunt out with virtual communities in rural Japan, and England and France. It was really something that was happening around the world and published that book quite a long time before this term social media came into being.

Howard: In fact, the year it was published was the year of the New Yorker cartoon that said, "On the Internet nobody knows you're a dog," and so that was really the start for me.

Jim: Yeah, that was a very interesting book. If people are interested in the early history of online, that's a great one to read. I think it was published in about 1993, something like that?

Howard: Yup.

Jim: Very interesting. Goes into the experience of the WELL and a bunch of other things. One of the things that you talk about in there, which I think was prescient, there's so much that's prescient in your work as I've gone through it here the last week or so getting ready for this podcast, is you had a section that you called Real Time Tribes.

Jim: Now, the technology that they used, IRC, which was a long-range multi-room chat protocol, with lots and lots and lots of channels, and it's become sort of obsolete, though now we have WhatsApp, very, very similar conceptually. But what I thought that really jumped out at me as prescient was the idea of tribes. The online world, from that time forward and actually going back to the '80s, was organized in many ways in many, many, many groups of specialized interests that one could think of as almost tribal.

Jim: They formed their own culture, they formed their own language. We hear about some of the tribal aspects today like over on the Chans where the people have their own language, quite interesting. What can you say about the idea of tribes online and how relevant is it today?

Howard: I mentioned that I thought that this medium has some unique characteristics, one of which is many-to-many. It used to be that you had few-to-many, if you were a newspaper editor or you had a television station you could broadcast and millions of people would listen to you. The thing about the Internet as a communication medium is that anybody can communicate with everybody. Whether they will listen to you is another story.

Howard: The other characteristic I thought was interesting was that you could connect with people who shared your particular interests, whether or not you had known them before and even if they were on the other side of the world, and that could be anything. It could be raising dogs or horses, or it could be your political beliefs or your religious beliefs. If you had a rare disease you could connect with other people who had that disease, or you were a caregiver

you connect with other people.

Howard: Of course, these days we can see that if you're a Nazi, or a racist, or a terrorist or a criminal, you can also connect with other. I think that that's an illustration of a general characteristic we've noted after these years, which is the Internet is a rising tide that lifts all boats and some of those boats are hospital ships and some of them are pirate ships. And the people connecting with each other around affinities have found that not only can they connect with each other and talk about things, but they can organize action, they can organize collective action in the physical world.

Howard: We'll have to look back to that idea when we talk about smart mobs, but back then the idea that you could find 10, or 20 or 100 people who shared your particular concern and spend all day talking with them. I remember one of the things that got me interested in this idea of tribes was the Usenet. There's a certain percentage of people who don't understand that there was social media decades before Facebook, but Usenet originated on college campuses.

Howard: At one point there were 100 countries and thousands and thousands of messages every day on different subjects. When I was researching the virtual community I found that people in the Harley-Davidson motorcycle Usenet group gathered in the US to ride together and they came from Australia, and they came from Europe.

Howard: So, this medium that connected people, even though we really couldn't see each other back then, from all around the world often led to people meeting in real life. I think a lot of that tribalism comes from that connection of connecting with people who share your interests and values, whatever those might be, and then doing something with them or meeting them.

Jim: Yup. I remember back on the WELL in the early days, I joined the WELL in 1989. I was actually at a business meeting in Boston and chatting with Mitch Kapor about a project that we were both interested in. He had joined the WELL the week before and he said, "Hey, Jim. You got to join the WELL." Right? And so I did, in December of 1989, and I was taken to it quite quickly.

Jim: One of the things that quite interesting about the WELL, particularly in those early days, is probably a third of the people on the WELL had been recruited via their tribal affiliation with The Grateful Dead, the so-called Deadheads, and they had numerous …

Jim: Frankly, I'm not a Deadhead. I've been to two Dead concerts, but they had various conferences about various things and they swapped bootleg recordings of sessions and things of that sort. It was a mega-tribe that had multiple sub-components and everything else. Yet, it

was quite significant on the WELL back in those days.

Howard: In fact, I think The Grateful Dead people on the WELL really kept the WELL alive financially. It was, I think, $2 an hour at that point and Grateful Dead fans met at concerts and would hang out in the parking lot before and after the show and during the show, but then they dispersed. So, they were really a community looking for a place where they could hang out all the time. And they got lots of things to talk about, set lists and endless arguments. I guess any fan group does the same things.

Howard: In fact, I had gone to a Grateful Dead show when I was in college in 1968, but had pretty much forgotten about them. But the people I met on the WELL brought me to Grateful Dead shows, so I got back into in the 1990s, but definitely the WELL probably survived as a viable business because of the Deadheads.

Howard: One of the things when I was researching the book, talking to Kevin Kelly about the design of the WELL, was that they designed it to be a business that would say in business, that they would bring in enough revenue to pay the bills, but they weren't after profit.

Howard: One of the interesting events, I don't know, maybe before or after you had joined, was that so many people had joined the server was really slow. The users of the WELL organized to buy a new server. We literally pooled our money, gave it to the WELL and said, "Look, we will buy our $2 an hour in advance so that you could go buy a new server." It's hard to think of any other business in which the customers buy the equipment for the business.

Howard: Because most of the people on the WELL in the beginning were in the San Francisco Bay Area, we began to get together for parties. Marriages were formed and marriages broke up, and people died, and people sat by the bedside of people who were dying, we passed the hat when somebody had medical bills. That's what got me thinking that this was very much like other communities.

Jim: It's interesting that you mentioned this server barn raising. That was a bit before my time, but you may know that in the later days the WELL was owned by Salon, a online magazine, essentially, and they totally ignored it after an initial flurry of interest and let it run into the group. They were about to close it when it was bought by somebody else or they had some financial crisis or something. The WELL members got together and bought it.

Jim: So there was 11 of us, I was one of them, actually, that each chipped in and bought the WELL from Salon and we run it as an independent company ever since. And frankly, just as you talked about with Kevin Kelly, it's cashflow positive, but not very. Nobody bought into the WELL for its financial cashflows that come out of it. We all bought in it because we care about the community and, as you said, so many things.

Jim: I still recall, this was so eerie. Essentially, and online wake with Tom Mandel. Remember Tom?

Howard: Yeah, sure do.

Jim: Yeah, he was a real active member of the [inaudible 00:20:53] and a good friend of mine. We got to know each other in real life too. He was dying of brain cancer and the day he knew he was going to die, he started up a online wake while he was still alive using the send function on the WELL, which is a very rudimentary chat. We were all chatting with him and with each other as he actually was going into the end game of brain cancer. It was extraordinarily moving and deep and I cried for hours afterwards. It was one of the more deep and profound experiences of my life, intermediated on text on a command line, but about a person leaving the scene of this sphere for to wherever else they may go.

Howard: Yeah, I remember the name of that thread was My Turn, which still gives me chills up my spine. Tom was a futurist at the Stanford Research Institute, so a lot of what he had to say was really interesting and you weren't hearing it anywhere else. I think that was one of the great values of the WELL because you had to be one of the sponsors of SRI's research to get some of that information.

Jim: Yup, absolutely. Actually, Tom was the number one poster on the WELL. I don't know if you remember. I used to write, I had a program I wrote that analyzed WELL usage in various ways. One of the ones was calculating who were the heaviest posters on the WELL, and so I'd post every month or two, and Tom was always number one. He asked me to not put his name on his username because his bosses would fire him if they knew how much time he was spending on the WELL. I said, "Okay. We'll anonymize it just slightly," but yeah. He was quite a character, to say the very least.

Jim: We got to move on here. Howard's on a little bit of a time check today. One more thing I would like to talk about from that book which is, again, very prescient, was you discussed three risks to the future of online and two of the three, at least, have become, to my mind, very, very important in the current trajectory of our online world.

Jim: The first one you talked about as commodification, that this isn't just a bunch of happy hippies running on a VAX in the Bay Area, but somehow this is going to become commodified big time. You talk a fair amount about Prodigy and it's attempts to get hegemony in that world. Of course, that never happened, but they tried.

Jim: Then you also talked about risk number two, surveillance control and disinformation. Well, guess what sports fans, what's life on Facebook and Twitter but surveillance control and disinformation. Then the third one, I think a little bit less important than the online world, but

perhaps important in the gaming world, which is the hyperrealist critique, which is that the presentation of reality in computers could be so refined that it might actually replace people's desires to engage in the real world.

Jim: Again, I think those, especially the first two, huge. I'd love to get your thoughts on what you were thinking at the time and what you think now about commodification first, and then surveillance, control and disinformation.

Howard: Well, when I wrote the book, again, I was excited by this new territory and I wasn't particularly an expert on it. I thought about, "What are the major ways that this could go back?" And those were three ways that could go bad. I also mentioned enclosure.

Howard: Back then it was Bill Gates. Maybe Bill Gates will take this over and sell it back to us. Interesting, it was probably Mark Zuckerberg wasn't born yet back then. Then the other one I thought, "Well, what's the most important thing?" And I felt that or freedom, the health of democracy will, when most are online, will democracy be healthier? Will we have more freedom? And that led me to discover this literature I'd never heard about, about the public sphere.

Howard: I want to circle back to this idea of the public sphere because I think that that is a contemporary danger. But this whole issue of commodification … Well, now they call it surveillance capitalism. It's really the marriage of surveillance and commodification in that the business model. I was really there when the attention business model started. I was the founding executive editor of HotWired, which was the online zine of WIRED Magazine.

Howard: I quit pretty quickly because of the direction that they were going, but we were excited by the idea that we could put up a banner ad and sponsors would pay us for that, and then we go pay people to write and to create art. How you made money online was a mystery and people laughed at you if you said you're were going to make money on the Internet, prior to Netscape going public. Then things got really interesting.

Howard: So, we had the first banner ad and we did not realize what that would lead to. It's not just the ad, of course, it's tracking what people are doing online and using the knowledge of their preferences to customize ads and then sell that filter, that attention of particular audiences, to advertisers, which wounds pretty good, actually.

Howard: However, it expanded so much. If you're talking about the Facebook, not only do they record every move of your mouse when you're on FB and every like that every makes on anything that you've ever done, but they follow you around the web elsewhere. If you log onto site using Facebook, they know what you're doing and they also buy information about people that's collected by others.

Howard: So, now they've got, what is it, two billion users and they have these extremely de-

tailed dossiers that enable them to microtarget advertising, which in the advertising business is really a great thing. It used to be you would put up a billboard so that hundreds of thousands of people would see it and maybe the people who wanted to buy your commodity would see it as well. Same thing with television. You would hope that millions of people would see it and that maybe a few thousand of them might want to buy something.

Howard: Here, if somebody was interested in blue jeans and you knew that by what they were doing online, then you could send them blue jeans ads. Well, what we discovered during the election of 2016 is that all kinds of people can use that microtargeting system, so now we've got computational propaganda where you can customize your propaganda to specific audiences.

Howard: Let's say you want to stir up racial unrest, for example you can find the Black people and the white people and customize messages to them and use Facebook's microtargeting system to propagate that propaganda. Then, of course, there's developed a whole ecosystem of trolls who will repeat that propaganda and bots that will do it automatically.

Howard: Same thing on Twitter. I think the surveillance is not as detailed, but certainly the bot networks are. We never really expected that. In terms of surveillance outside of the online world, I did write about that. I had a syndicated column in the 1990s, 1994-1995, and there people who cared about what was happening.

Howard: I wrote about closed-circuit television cameras going up and I wrote that, "They can't recognize your face yet and they're not networked yet, but some day they will." I wrote about the sensors we all use when we're on the road and we want to go across a bridge and it automatically collects our toll. Well, that automatically leaves digital breadcrumbs, as every time you swipe your credit card you're leaving a trail.

Howard: If somebody could get all of those breadcrumbs together, they could have quite a great dossier on your movements and your preferences. But nobody really cares. It was a couple of privacy scholars at universities but, for the most part, the public didn't care and I include myself in this. We traded privacy for convenience. That Amazon knows what books I've looked at and what books I've bought, well that's good because it recommends things to me that I might be interested in.

Howard: I think you can see a theme here, that rising tide lifts all boats thing is that a lot of these things that are very useful to people can be subverted. Well, the rising tide lifts the boats of the wealthiest enterprises more than it does of individuals, so now we've got the … Back in the days of the WELL there was Usenet, there was IRC, there was the WELL, there were BBS's, all of these were smaller or larger enterprises, but they were nothing like these semi-monopolies we see today.

Howard: You've got Amazon, Apple, Google, Twitter and Facebook, so many people these days don't understand that those were all invented because had an Internet that was designed to enable people to innovate on it, no matter who you were. Tim Berners-Lee didn't have to re-wire the Internet, he just needed to pass some code around to people. The Google twins didn't have to ask permission to create a new kind of search engine.

Howard: That kind of open innovation, I think, is tremendously threatened by this enclosure, by these giants. If you really want to innovate these days you either have to work for one of those guys or you've got to do something that's far enough away from their business that they're not going to steal it. And, if you're successful, you're going to want them to acquire you, so we're living in a whole different innovation ecosystem.

Howard: Now, right now at this moment, so many people are forced to be online because of the COVID-19 quarantine, we're forced to have our meetings are meeting online. Oh, people are discovering things that you and I knew a long time ago, which is you don't have to go to the office all the time, you can communicate online.

Howard: I do think that there's a place for the office and I think that the place for the office is primarily social. You can get a lot of work done at home. If one in four people, after this COVID is over, stayed home one day out of four, think of all the carbon we wouldn't be putting into the atmosphere. Think of all the hours you wouldn't be on the freeway.

Howard: Gosh, I don't know where I was going with that.

Jim: Let's move on. We were talking about the fact that the big guys control things in a way they never did before, though it is useful to remember that in the late '80s and early '90s AOL was a pretty damned dominant power and it had it's walled garden alternative to the open Internet, but in those days it was still relatively small on the scale of things. Had millions of users, maybe even tens of millions, but it certainly didn't have billions like the platforms have today. It does seem, from a social-political perspective, that we don't know how to think about these platforms, right? We have the current controversy with the idiot-in-chief and his tweets, and is Twitter a free speech platform?

Jim: Well, constitutionally, it's not. It's a private business. They could be as arbitrary as they want. They could say, "No goddamn Republicans," if they wanted, and it's within their legal rights. But does a platform that's that ubiquitous and, in many ways, become the public square, have some large duty to allow free speech? I don't know. It's a really interesting and difficult question that the scale, I think, brings forth that we really have not dealt with it as a society, and the United States least of all.

Jim: Europe has made some attempts, at least, to bring these platforms under governmental

control, much where they're moving in the right direction. In my view they've moved in partially the wrong direction. Partially right about private, partially wrong about censorship. But in the United States the platforms make the rules, period.

Jim: For things that are that ubiquitous, that does not strike me as the right model. Do you have any thoughts about that, about how we, as citizens, should think about these platforms?

Howard: I mentioned the public sphere awhile back. When I was 1992 I was writing The Virtual Community, I thought, "Well, what does this have to do with democracy?" And I discovered this political philosophy. A German political philosopher by the name of Habermas wrote these books, they're practically unreadable in my opinion, but he had this very potent idea which he traced out historically, which is that democracy, rule of the people rather than by a sovereign, was not just about voting for your leaders. It was about having a population that was, A, free enough to talk with each other and, B, informed enough to have some idea what they were talking about to discussing issues of the day and to argue about the issues of the day.

Howard: When the American Revolution happened there were anonymous op-eds in the newspapers, that we now call the Federalist papers, that were arguing about things. They were the committees of correspondents. So the idea that the entire population supports the democracy that representation and voting are the most visible parts of it and is very important.

Howard: Habermas had two fears. One of them was that the nation science of public relations would enable the wealthy and the powerful to skew the public sphere, to convince people to see things their way, whether they knew that they were being manipulated or not. His other fear was that journalism would be overtaken by the profit motive and that the role of journalists as informing the people of a free society would, again, be subverted by those who had wealth and power.

Howard: What he didn't foresee was computational propaganda on the scale that we're see and also the scale of things. Let's say that Twitter and Facebook wanted to eliminate the misinformation that was being broadcast. And you know there's a big gray area in political discourse. You may say something that I think is totally bogus and we can argue about it, but I think something like if you swallow disinfectant that may cure COVID, that's literally life-threatening misinformation.

Howard: If these platforms with billions of users wanted to police that, they would be unable to, so we're kind of in a bad position here in that we're certainly seeing in the case of Facebook that they are reluctant to act as an arbiter of truth. But even if they decided to do so, in the arms race between manipulation of information, disinformation, misinformation, what I call disinfotainment and the ability of individuals to find their way through that, I think that democracy's really losing that arms race.

Howard: I wrote a book in 2012 about the major social media literacies that people needed to have and I chose crap detection as the first one. Well, no, I chose attention as the first one and crap detection as the second one. The idea was that, well, if more people could learn to distinguish the good info from the bad info, then that would not only be good for them, it would be good for the public sphere.

Howard: This happened a long time ago before Google. My daughter, who's now grown, when she was in middle school she started using Infoseek and other search engines to do her homework and I sat down with her and I said, "Look. You get a book from the library. There was a publisher, an editor, a librarian, the teacher who assigned the book, all of them were kind of gatekeepers that will guarantee to you that the information in that book is more or less accurate. You can put a query into a search engine and get a million answers in a couple of seconds and it's now up to you to determine what's real info and what's bad info."

Howard: I used the example of a site called MartinLutherKingJr.org that is actually run by Nazis. It looks like it's a biographical site about the civil rights leader, but if you look at it a little bit deeper it's kind of a dark story about him. I showed her that you could use WHOIS and find out who's behind this. Was it a guy by the name of, was it Don Black? Something like that. If you look him up you'll find out that he was a Nazi.

Howard: You know what? That was fairly easy to find out, but nowadays you've got AstroTurf sites that look exactly like their an environmentalist site, but they're actually run by a chemical company. There is so much sophisticated disinformation out there that the education to enable people to sift through it is much more important and, as far as I can tell, completely lacking in educational institutions.

Jim: Okay, we'll get to that soon when we talk about Netsmart.

Howard: Okay, okay.

Jim: But those are very, very important things. In the interests of time, we talked about some of the negatives, but I always like to do this because so much of our discourse about the nets today are about the negatives on the net. But there's a helluva a lot of postives, right? Otherwise, why would people be doing it?

Jim: You wrote quite a bit. The end of Virtual Communities you talk about the formation of the EFF, I helped dabble in that in my own little way around the edges, and then you talked at considerably more length in your book, Smart Mobs, about how people could use these online tools and these platforms to do good things. Maybe you could talk a little bit about your perspective on those two things, for the EFF in virtual communities and then transition into smart mobs?

Howard: Well, one of the things that got me thinking about community was that there was a parenting conference on the WELL. Although the arguments got pretty hot in a lot of places, in the parenting conference we were talking about our children and although we might have argued about things elsewhere, it was really a very convivial place. There was a guy by the name of Phil Cat, was his online name, who organized a baseball game after a while. So we got all of us parents could get our kids out and meet each other face-to-face.

Howard: Not too long after he started organizing those baseball games, Phil came online and disclosed that his 15-year-old son had been diagnosed with leukemia. And overnight, literally overnight, a support group materialized and we did pass the hat and raised about $15,000 for medical expenses. But there was a nurse on there who could give him answers at 11:00 at night when he wasn't going to call his doctor.

Howard: His son, sadly, did die and the last two pews in the church for his services were people who had known his parents exclusively online. One reason I tell this story is that 10 years ago I was diagnosed with cancer and I went to daily radiation treatments and I needed to get people to drive me back and forth to these radiation treatments. A lot of people that I had known on the WELL decades before just signed up spontaneously to help me.

Howard: And by golly, one of the people who drove me was Phil Cat. I think I mentioned before that if you have a rare disease, if you have a disease that only one in a million people have, those are 2000 others on the Internet you can connect with him. If you have a disease or you're a caregiver for a disease, you know very well what I'm talking about, that there is support you can find online. There's support you can find in the middle of the night when nobody else is going to talk to you and these people are going to help you out in the real world in many instances.

Howard: Then, of course, as I started researching smart mobs because I was traveling a fair amount by the time and I noticed that people in Tokyo were looking at their telephones. Why would you look at your telephones? Then, a couple of weeks later, I was in Helsinki and people were looking at their telephones. In 2000 people in the US were not texting. That really took off with the iPhone in 2007.

Howard: That was what futurists call a signal. Something's going on here. I wasn't sure at all what it was, but then I found out about … Well, there are a couple of things that happened. One was called the Battle of Seattle, where the World Trade Organization had a meeting there and the people who were opposed to the World Trade Organization really, for the first time, used laptops and the Internet and mobile phones to coordinate their actions. That may not seem like a big deal today, but that was a big signal back then.

Jim: I remember that. That was huge. That was huge, yeah.

Howard: Yeah. It seemed like that was a watershed of some kind in terms of political power, that the state and established central powers state had the radio telephones in their cars. They had the ability to coordinate with each other. Suddenly, citizens could do that.

Howard: Then, in the Philippines, there was Joseph Estrada was the President of the Philippines, he was accused of corruption. There was a big trial in the Congress there and when a lot of his political allies tried to shut that down, people in the Philippines sent out text messages saying, "Show up in the main square. Wear black" and within 15 minutes millions of pep started showing up in the main square there.

Howard: And, of course, the church and the military had a lot to do with it, but the Estrada regime fell and that was really the first time that people took collective action within minutes, people who didn't know each other, who really weren't in the same political party were able to use their telephones to coordinate collective action in a physical world.

Howard: That, to me, was the final signal that this was something really worth looking into. As a writer, I always try to do what any good journalist does, which is go find some experts and see if they know what's going on. When I wrote The Virtual Community I couldn't find any professors who would talk about this, but I found a graduate student at UCLA in Sociology by the name of Mark Smith. I asked him, "Why would people give away information to strangers online?" And he said, "Knowledge capital, social capital and communion," which I think is still true and important.

Howard: So, I turned to Mark Smith again around 2000-2001 and he said, "It sounds like the fact that people are carrying phones and that they can connect to the Internet has lowered the barriers for collective action." Remember that book Smart Mobs was published in 2002? Arab Spring happened in 2011, so much later that most journalists had forgotten about that.

Howard: But Arab Spring was all about Twitter and Facebook. The Egyptian Revolution started with a Facebook page. And, of course, the Egyptian Revolution was hijacked by the military. Revolutions quite often are hijacked, but the fact that they were started spontaneously by people using social media was a watershed. In fact, for an editor volume for MIT Press I spent some time just collecting instances of people using mobile phones, they weren't quite really smart phones yet, and the Internet to coordinate collective action all over the world, including the People's Republic of China. There were hundreds and hundreds of incidents.

Howard: Then, again, disaster relief. After the tsunami in Asia really, again, literally within minutes, the South Asian Tsunami Blog was set up that helped coordinate people's actions. I remember one instance in which someone said, "I've got 50,000 nails that I can contribute to people who are building temporary housing in Indonesia. I can get them to the dock if somebody can get them over there." It's called emergent response. It happens in all disasters.

Howard: Before the official first responders get there, it's the people in the neighborhood who dig you out. Now we're seeing this emergent collective response happening worldwide. And it happened … There was PeopleFinder Wiki after Hurricane Katrina. So many people were scattered how were they going to find their families? They were using Craigslist, they were using Usenet, so the Katrina PeopleFinder, I remember they put this together very quickly and they scraped all of these other sources so that people would have a single place to find their relatives.

Howard: I remember talking with the people who set it up who said that somebody had found a way to get their data flowing much more quickly and they located this person and they called him and he said, "I'd be happy to talk to you, but I have to go to school now." He was 15-years-old.

Howard: So, we've seen so many instances and we will continue to see so many instances of what's called mutual aid. We're seeing it right now in the United States with the failure of a government to coordinate leadership around the response, we are seeing mutual aid organizations popping up everywhere. I wrote a post on it on my Patreon. In order to give some credibility to my theorizing, I started look up a few and I stopped at around 20 of different efforts around to coordinate response.

Howard: So, mutual aid is as potent as all of the negative effects we're seeing. Again, I think we need a more nuanced discourse about technology that recognizes there's a very big gray area and we really have to talk about how we want to act as users and designers of technology. It's not just black and white. I think, until fairly recently, people considered the latest technology to be a good thing. It was progress.

Howard: Now people are asking questions about it and I think that's important.

Jim: Yup. Yeah, that's where we're at today, but I think it is important and I'm glad you did this and you did give some excellent examples. That while there are issues with the network platforms, there are great benefits and I can tell you one here locally. I live in a very remote farm in the Appalachian Mountains and we have a growing, call it a neo-back to the land movement, of young folks who are buying or renting old mountain farms and putting them into high quality organic production.

Jim: There was five of these farms locally that had built a great clientele with restaurants, and they were selling their chickens, their eggs, their wine and cider, their greens and their vegetables and other things to these high-end restaurants. Well, guess what? The high-end restaurants are all closed and, fortunately, one of them was quite computer literate and put together an online store that allowed all five of the farms to offer essentially a community-supported agriculture, but customized.

Jim: You could sign up, but you could get what you wanted each week. You go down to the more central of the five farms and pick up your stuff. And how's it been marketed? Mostly on Nextdoor and on Facebook and, within a couple of weeks, these five farms were able to re-place at least a significant part of their incomes, which had literally gone to zero when all these fine dining restaurants closed, by selling directly to consumers.

Jim: That would have been impossible in the pre-Internet age. Again, I love to point out and hear stories about the good that comes from our platforms. Yes, we have to be wary of them, but we also have to acknowledge that there's a reason they're so popular. They do some good things too.

Howard: Yeah. I think that we ought to look at well, what are the characteristics of the bad things and what can we do about it? What are the characteristics of the good things and how can we do more of that?

Howard: One of the things that I think, we have opportunities now that have been forced. We are forced by the COVID-19 shelter-in-place to do a lot of our social and business communica-tion online. Teachers have been forced to teach online. Teaching online is not a replacement for face-to-face, but it's not worse than face-to-face if you know how to do it.

Howard: I think there's a huge opportunity, particularly in places where you really can't afford a high quality bricks and mortar institution. I think that it's going to put some good pressure on universities to change and it's going to highlight that the big name universities with the big businesses and the big endowments are maybe not as important to education as the commu-nity colleges and the small liberal arts schools are.

Howard: Another forced opportunity is that transporting thousands of people thousands of miles to have a face-to-face conference just isn't happening. You can have a conference with thousands of people online if you know how to do it, and we're beginning to see that happen-ing.

Howard: I think a lot of these things we're being forced to do could become permanent fea-tures. The same thing with community-supported agricultures happening in my neighborhood. These distribution networks that are just ad hoc, set up using online media to enable the farm-ers to get their fresh food to people, I think that those are going to continue when the restau-rants open again.

Howard: We have an opportunity to understand what's happening and to try to shape the out-come. I also think … I call it green space online. You can still start a BBS. You can use Discourse or Reddit very easily, really cheaply or free, to do that. You can start a chat group. There are a lot of ways that people can start their smaller communities of interest online and I

don't think we're going to overcome Facebook's monopoly, but I think we ought to preserve that space outside of Facebook's enclosure to create our own online media, online communities.

Howard: There are so many tools to do it now and there's a lot of knowhow about how to do it and now we're sort of being forced to do it.

Jim: Yup. It's been a remarkable amount of innovation. Even Facebook, as much as it is a shit show, it has almost unintentionally, I think, created the Groups space, which I know a lot of people, including people I work with and some of my own projects are done on Facebook Groups. As far as we can tell, there's very little or no advertising. They don't have control of the order in which content appears, and so a lot of the real negatives about Facebook go away.

Jim: Yet, you are only a single click away from several billion people. Even within Facebook the Groups phenomena, it turned out to be of value. That's how I spend 95% plus of my Facebook time, such that it is, in Groups and only in Groups. The public Facebook has become much, much, much less interesting to me.

Jim: So yeah, I think the point that we could build our own worlds, and continue to do so, is even true in Facebook.

Howard: There's a lot of this mutual aid is organized on Facebook and so a lot of good stuff happens in Facebook Groups. A lot of the bad stuff, Nazi law enforcement have their own Facebook Groups. My problem with Facebook Groups is that the way that a fairly large group can have sustained conversations. That was solved way back with the software we used on the WELL. And software for enabling that kind of conversation, asynchronous conversation, has evolved since then.

Howard: If you've got a Facebook group and you post something, that will be visible people until somebody else posts something and then yours is deprecated. If you've got a group of 500 people, it's really hard to have a conversation that's going to sustain for more than a day that way.

Howard: Of course, with a good conferencing software, well, the software knows what you want to see and which threads you've been following and when you login it shows you the new responses in the threads you've been following. Again, a problem that was solved.

Howard: I was invited to speak to the social scientists at Facebook a few years ago and it's interesting because Google, where my daughter worked for eight years, I know of one social scientist that they hired and he was miserable there. But Facebook had, gee, this group must have been 100 people, and so I ranted at them the same rant about, "Why can't you make Facebook Groups a little bit more like a good BBS or computer conferencing system?" I don't

know why they haven't.

Howard: Like you said, it doesn't show advertising, so I don't know what their business reason is for it, but it must be a business reason. Anyway, let's move on.

Jim: Yeah, let's move on. Let's move now to your most recent book, Net Smart, which I believe was published in 2012, which must mean it was written in 2010 or 2011. And again, pretty prescient about the trends of the world.

Jim: Let's start with the first chapter where you happen to hit one of my favorite topics, regular listeners to this show know I basically say, "You are your attention," and your first chapter is called, Attention. And then I think it's, Why and How to Control Your Mind's Most Powerful Instrument.

Jim: Talk a little bit about attention and I don't know how much you know about attention … I do remember, actually, in the book there's a fair amount about the cognitive science of attention and how the attention economy has become the world that we live in.

Howard: Well, I had five literacies and I chose that as the first one because attention is the foundation of thought and communication, but also it was very clear, even in 2010, that these online media, and increasingly mobile media, were making money by harvesting our attention. The more attention you could pay to a site, the more advertising they could display to you and, of course, we're now learning that the people who create a lot of these apps understand the same psychology that the inventors of slot machines understood. How do you capture people's attention and get them to continue paying attention? It's like we've been captured in that sense.

Howard: The good news is that your attention is now fixed. You can learn to control your attention, it's just that you never did. It's not something that your parents teach you. It's not something that they teach you in school. Oh, yeah. You got to pay attention to the teacher when they're talking, but that doesn't really mean that you gained control over your attention.

Howard: Again, I did my research and the good news is if you look at multi-thousand-year-old contemplative traditions and you look at a lot of the cognitive science and neural science about attention, it's certainly possible to train your attention. My interpretation of that is that any attention to how you're using your attention is a lot better than not paying attention to it at all.

Howard: Then, of course, there are a lot of things that you can do. One thing that I ask my students to do was something that I did for quite a while, which is at the beginning of the day when I sat at my computers. Nowadays it might be a laptop or a desktop, or it might be your phone, but I said, "Take a Post-it note and write two or three things you intend to accomplish

with your computer by the end of the day and just put that in the lower corner of your screen. Every once in a while your gaze will fall upon it and that's the time for you to look at the time and figure out how much have you accomplished and what are you doing right now?"

Howard: It's really not a matter of policing yourself, it's a matter of making yourself more aware. I taught something I called infotention. I think there's a whole lot of more room for research and education about infotention. But I started writing the book because going back to the 1980s I was writing about personal computers and then, in the 1990s, about what became known as social media. Then I started writing about mobile media.

Howard: At every turn scholars and critics would ask, "Are these things really any good for us as individuals and communities and societies?" I concluded by around 2010 that a lot depends on what we know and how many people know it. It's a matter of literacy.

Howard: You and I and a fair number of other people, we know how to make our way online. You mentioned AOL a while back. On Usenet, every September a bunch of new freshmen would get their Internet accounts and they would start acting up on Usenet. Well, the regulars on Usenet would enforce the norms that they had developed by being kind of forceful with the newcomers.

Howard: One day AOL cut loose three million people on the Internet with no instruction at all. That became known as the September that never ended because those norms weren't passed along. I think it's one of the things that's missing from the worldwide social media are norms and what are the most important norms that we need? What are the most important things that we need to know how to do that if an individual knows that, that individual will do better. But also, the more individual who know that, the healthier and the more useful the comments would be.

Howard: So, I came up with attention, crap detection, participation, collaboration and network awareness and attention is the first one. If you don't have control over your attention, you can be manipulated in all kinds of ways. But again, very close behind that, is crap detection. Can you on your own find the information you need and guarantee that it's not going to kill you or it's not going to be detrimental to your social life or to democracy. That was an issue in my mind in 2010, but now I think it's an overwhelming issue.

Jim: Yup. I wonder if we are capable as individuals to really be excellent crap detectors, considering the level of sophistication the crap producers are using. I'm currently reading a very interesting book called Lie Machine by Philip Howard from Oxford. He goes into great detail about the techniques, and the money spend, and the skills that go into crafting junk news, as he calls it. He's now abandoned fake news as because it's been co-opted by other people.

Jim: One wonders, is the average person, keep in mind the average person has an IQ of 100 and, in the United States, has maybe a year of college. Is such a person actually capable on their own of doing crap detection or does it make sense for them to club with other people, we call collective sense making, and together try to figure out what makes sense and what doesn't? I wonder what you think about that idea.

Howard: Well, we have an existence proof of that works. When I started looking at people who were doing research on credulity and incredulity online, they noted that a lot of gamers educate each other about what's real and what's not online. It certainly is possible. To me, it comes back to education. When I was teaching digital journalism I came across the Lippmann-Dewey Debates, almost exactly 100 years ago, kind of the media superstar that day was a young New York Times report by the name of Walter Lippmann. He wrote a book called Public Opinion.

Howard: His opinion was that the US has become this industrialized complex society and that Americans are too uninformed and too gullible to manage such a society. He proposed that the Technocrats run it. And John Dewey, who was an older professor at Columbia at the time, said, "Well, if Americans are not well-informed, we need better journalism. And if Americans are too credulous, we need better education," and so here we are 100 years later and I asked my students, "Would you bet a thumb on Lippmann or on Dewey?"

Howard: I think that argument is still going on. For better and for worse, education systems are very conservative in the sense that they take a long time to change, so we have a society in which the technology is causing social changes at a rapid rate, but education systems are not really dealing with it. I think this kind of educate each other and tribal education, for better and worse, is what's happening today online.

Jim: Yeah. That's both better and worse. I mean, we have good peers. I'm a member of a group on Facebook called Rally Point Alpha. I think it's 1500 people who are really quite rigorous sense makers and we collectively process what gets posted by the members when they think there's something that might be significant, but might have a subtext or be seriously biased in a non-obvious way. They'll be some quite serious dissection of these pieces and commentary about them.

Jim: But on the other hand, if you're a member of White Supremacists of Missouri or something, the collective sense making of that group, while it may be accurate from their point of view, it's hard to imagine how that has social utility.

Howard: Yes. You're talking about tribalism. I think it's sense making tribes are what we have now. Again, in regard to education, I learned using social media with my students, it's not just about the social media but about the pedagogy that students are used to not being trusted.

They're used to the teacher delivers information and you figure out what's going to be on the test. Then you do well on the test and show that you got that information. It's called the banking model. The teacher has some information and it's the duty of the students to bank it.

Howard: Trying to educate myself I came across Neil Postman's book on education in which he said, "Societies that change slowly, it's the duty of the older generation to pass along what works. In societies that change very rapidly, it's the duty of the older generation to teach the younger generation how to learn for themselves." Our education system has not been set up to encourage people to learn for themselves, even though that's really a human instinct and we are human in large part because of our ability to do social learning.

Howard: Schools have had this monopoly on learning since forever, but now if you've got a teenager, ask them how they would learn how to play the ukulele or configure a web server, and I be they're going to say, "Well, I'll do a search on YouTube," and they'll probably find another teenager who will teach them how to do it.

Howard: We've got YouTube, we've got Wikipedia, we've got Google, we've got the Internet Archive, we've got so many of the books in the world online it's now possible for people to educate themselves and educate each other without going to school. Of course, what's missing is, "Well, how do we do this?" So, I started a project I call peeragogy, instead of pedagogy, that's teaching the young. Peeragogy is peers teaching each other.

Howard: This is 2011, a group materialized online of educators from all over, Mexico and Japan and Germany, and it's still going. I really dropped out of it a couple of years later and the community took it on by itself. But if you go to peeragogy.org, you will find that they're in the fourth iteration of a free handbook on how groups of people can learn online.

Howard: Let's say you and your tribe want to learn a particular subject and none of you are an expert, how do you go about finding resources, and qualifying, and organizing those resources, and creating learning experiences, which media do you use, how do you assess it?

Howard: So, I think that we have both an educational challenge in that our educational institutions really can't keep up with learning crap detection and attention management, but we also have the ability to learn with and from each other online.

Jim: Yup. You talked about YouTube. My wife is starting to complain about her hair getting to long and scraggly and she said, "I bet you can figure out how to cut my hair on YouTube," and so I've been watching more YouTube haircutting videos than I'm really interesting in, but I think I have learned how to cut hair with scissors and a comb and I'm going to give it a try tomorrow. As I said, "Well, no matter how bad it is, it'll grow back in six weeks," so we shall see.

Jim: We're getting close on time here. There is other interesting things in Net Smart that I

would encourage people to read, but I would like to jump ahead a little bit to a last topic, which is something I didn't even know you had done until I was doing research for this podcast, and I found it extremely interesting. That is the class that you teach on the Literacy of Cooperation.

Howard: Oh, yeah. Well, again, I usually learn things by stumbling across them and then looking into them. When I was writing Smart Mobs this issue of collective action became interesting to me and I discovered the work of Elinor Ostrom. In particular, Ostrom was awarded the Nobel Prize in Economics, which bugged a lot of the economists because she was a political scientist.

Howard: I think most people know the phrase, "The tragedy of the commons." It was written by a biologist at Stanford warning about population growth threatening the human population and the commons he was referring to were the common land in most villages that was not owned by anyone and anybody could graze it. And, inevitably, people would graze as many cattle or sheep as they could and they would destroy the commons. The desertification of North Africa with people just going for firewood further and further.

Howard: In this conclusion that's what the tragedy is, is that this is inevitable. Well, Ostrom, gee it took some years. Ostrom asked, "Well, is it really inevitable?" And so she studied people who were managing common pool resources, fisheries, timber, water systems, policing, and she concluded that there was a core of people of groups everywhere who did manage to use common resources without despoiling it or overusing it, and she found seven design characteristics around those communities that seem to be common.

Howard: One of them was clear boundaries, another one was ability to make new rules, another one was fairly inexpensive, relatively fair means of adjudicating disputes and I thought, "Well, why humans cooperate and why we don't cooperate in so many instances, that's so important to so many things. We've got this global environmental crisis and global warming, we've got nuclear weapons, we've got disease management, all of these things are commons issues. Wouldn't the people who are dealing with this deal with it better, not that there's a formula, but if they understood more about human cooperation."

Howard: So, I had a little course at Stanford that I used to start learning about this. We had Jim Wales came out and spoke, and certainly Wikipedia's a great example of cooperation. There was a sociologist by the name of Mancur Olson who wrote about collective action and pretty much established the norm among social scientists that a group of people who are not related and who are not incented financially are not going to create public goods.

Howard: Of course, Wikipedia is a counter example to that and we find out that people actually do that. One of the things that I discovered was that biologists work on cooperation, sociologists work on cooperation, economists, computer scientists, political scientists, but they

don't really talk to each other. So, I thought, "Gee, and interdisciplinary study of cooperation, how important that would be."

Howard: I actually was invited to give a TED talk in 2005 and that's what I gave the talk on, calling for a new science of cooperation. I'm happy to say that that's happening now. There are centers at Arizona State University and in Amsterdam where they're doing this interdisciplinary study. I was naïve about the role of interdisciplinary work in the university.

Howard: You are rewarded for your specialization in a university and every minute you spend in interdisciplinary cooperation you're really losing out. It's an opportunity cost. So, those institutions are not really designed well for collaboration, although they certainly are trying.

Howard: I started this online course in which I would introduce people to the literature and again, this is one of the things that I learned teaching blended learning at Berkeley and Stanford, but also running my own courses online, was that yes, we had a weekly live session. Like the Zoom sessions today, I use different technology, in which I gave short lectures.

Howard: But during these lectures the people who participated, they searched and put the things that they found in the chat. Other people contextualized those with a couple of sentences describing them. Other people created a wiki page for that session so, again, the pedagogy that I learned was to give up some of my control as the teacher and to ask the students to become more responsible for their learning.

Howard: In my experience, they react really, really well to that. They haven't been trained to do that, but that's something that humans naturally want to do. So, I taught a bunch of people and a lot of them are in peace studies or in studying housing and homelessness.

Howard: I'm hoping that having a kind of a 50,000 foot view understanding of what we know about cooperation, which is a great deal, and what we don't know about cooperation and obstacles to it, which is a great deal, that people would be able to do a better job.

Howard: Again, I think that this ought to be a major in universities. People ought to do interdisciplinary studies of cooperation and collective action.

Jim: Got it. Good. Very, very good. Are you still offering the course?

Howard: I haven't done the course in a couple of years, but I guess a year or so ago I took the curriculum and I turned it into an eight-part annotated reading list for that. I may give the course again, but if you want to do your own readings on this I've got this eight-part and it's open to the public on Patreon.

Howard: I quite Facebook because I hate what Facebook is doing to the world and started

sharing on Patreon. What's interesting about Patreon is they don't have the surveillance capitalism model. They're not serving ads to you based on your preferences, they're enabling people who believe in what you're doing to contribute a dollar a month or two dollars every time you do a video or a podcast.

Howard: I have always like the idea of writing for, or showing my art for, or teaching for a public rather than an audience. An audience is really from the broadcast age. They're people who read your stuff, review your stuff or listen to your stuff and maybe they'll send you a fan letter or buy something. But a public and, again, it's only the Internet that's made this possible, a public can link to you. A public can disagree with you and debate with you. A public can join you for collective action.

Howard: I like writing for my patrons, so about half the material I put up is only for the people who pay a dollar a month or two dollars a month or whatever, but the rest of it is free to the public and I like that platform a lot better. I don't think that the people paying each other business model is going to take over from the surveillance capitalism model.

Howard: It's too bad we didn't have micro-payment technology so that we could have started out with people paying each other. I would pay a fraction of a penny to read something and I might read a bunch of things every day and it wouldn't make a huge difference to me. I might even come out ahead if people read my stuff. Of course, that was when Ted Nelson wrote Computer Lib in 1974 in which that's what he hoped would happen, and Patreon is kind of a step in that direction.

Jim: Yup. That's a good thought. And yet again, when I think back of this long arc that we've both been on since the early '80s, to my mind where things started going in a direction that I like less, that was what we said, there's good and bad, is when advertising became the predominant paradigm.

Jim: I think we both know Chris Anderson, I think, one of the founders of WIRED, and he wrote the very influential book, Free, that essentially supercharged the phenomena of all online business models that could be free, should be free. And well, if it's free, as they say, if you're not paying then I guess you're the product and that is, indeed, where we're at.

Jim: I'm glad to hear that Patreon is working for you. As I mentioned at the beginning of the show I've been a supporter of you on Patreon for some time and I would encourage other folks to check out Howard Rheingold on Patreon.

Jim: With that I think we're at the end of our time. I just would like to thank you again for this very interesting survey of your work and the history of the online world.

Howard: It's entirely my pleasure, Jim.

Jim: Very good. Thank you.

Production services and audio editing by Jared Janes Consulting. Music by Tom Mahler at modernspacemusic.com.