

The Next Chapter

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(Shortwave broadcast only: Roll 'Simple Gifts' id)

(Announcer:) The following program is a production of the North American Service of Radio Alexandria. (Begin domestic broadcast: Roll open theme, then under for:)

Hello Team Humanity. I'm Roland B. Hunt & you're listening to The Next Chapter. (Theme up, then under for:)

The Next Chapter looks at where we seem to be headed as a species on this little blue planet, do we really want to go there, & what are our options? Today we'll look at some new economic warning signs originating in Europe that could affect global financial stability. Market volatility is near an all-time low. That's the time to be concerned. Then we'll hear about the techniques used by the big tech companies like Facebook and YouTube to manipulate you & keep you watching them. & finally neuroscientist Daniel Levitin will suggest some ways for staying calm when you know you'll be stressed. (Pause for stations airing 4 min. newscast.)

The Next Chapter is about ideas. It's not about any particular religion, or joining some movement or cause, or buying gold coins or land in Belize. But if you want intellectual adventure, if you like trying to answer tough questions & solve tough problems, you've come to the right place. & if you go away from this broadcast without feeling challenged or even annoyed by some of what you've heard then I have failed in my effort to rattle cages & stimulate original thinking. We live in a dangerous age but also one full of opportunity to advance humankind to our fullest potential. Let's seize that opportunity while we still can.

Before we get started though let's quickly review the ground rules we follow on the Next Chapter. First, we don't do religion on this program. I'm not a theologian & make no claims to be wiser. Everyone is welcome here though, whether you're a fundamentalist believer, militant atheist, or anywhere in between.

Second, The Next Chapter doesn't pay much attention to conspiracy theories, Big Foot, UFOs, or who killed JFK. It's all very entertaining but this is a serious program about serious issues. I keep an open mind on these subjects & once in a while I might touch on them but generally I let George Noory, Alex Jones, & others carry the black briefcase on such matters.

Third, we have nothing to sell here. No books, no MREs, no gold coins, no land in Central America. We might look at the pros & cons of owning gold, or if you're thinking of moving overseas, what factors you need to consider. But in the end it's up to you to do your own homework & make your own decisions.

Fourth & last, The Next Chapter is neither for or against any government. After living & working for much of my adult life in more than a dozen poor & often war-torn nations, I've come to the conclusion that all governments, ours included, are going to do whatever it takes to keep themselves in power. That's what governments do. What we as individuals do though is up to us,

not blind, impersonal historical forces...or men in black.

Unlike our ancient ancestors who lived day to day & had no way to anticipate mega-disasters, now we not only anticipate & plan for them, we humans can & have built vast underground bunkers in many countries that will allow thousands of humans to live underground for years until conditions on the surface improve. The US has them. So do the Russians & the Chinese.

Switzerland reportedly has bunkers that can shelter its entire population of eight million for up to two years. That kind of capability is a game changer but it doesn't alter the reality that our species has cum up against some extremely dangerous problems for which we currently appear to have no solutions. Weapons of mass destruction, bioterrorism, & mass unemployment caused by the rise of intelligent machines are just three examples.

So if for whatever reason modern civilization does pass into history, there will be survivors. The question is, will those who come after us be able to learn from our mistakes & not repeat them?

The Next Chapter is for the elite but in this case the elite is self-selecting. It's anyone who enjoys thinking deeply about serious issues. Some listeners may find some of the subjects we talk about on this broadcast disturbing but you can be sure that elites in governments & private research institutes around the world are also thinking about these issues. Our goal is to bring as many people as possible into the conversation. In a complex technological society we can't hope to meet tomorrow's challenges unless we understand them. (pause for stations carrying a newscast to rejoin the program)

In a few minutes we're going to hear a very interesting talk on the psychological techniques the big internet companies like Facebook & YouTube use to try to keep you glued to their sites. Our informant is a man who used to work for one of those companies & who is concerned that such techniques in fact undermine the notion that we're in charge of what we view on the web.

Now of course the Facebooks of the world would say they're just trying to steer you to material they think you would find interesting but of course their real motive is profit. The more views & the more time spent on their site the more they can charge advertisers. It's just one more example of the use of subtle psychological techniques to manipulate you when you're not expecting it.

Before we get to that though I want to bring you up to date on some new warning signs on the financial horizon. As I often say this is not a financial advisory show so what I'll have to say has nothing to do with investing in this or that stock or fund index but everything to do with anticipating a major upheaval in world markets. I don't see such an upheaval happening in the immediate future, as in days or weeks, but I do share the view of many observers that we're living in an era of bubbles waiting to burst. I don't know which one it'll be or when but the dangers are out there & it's not just the usual doomsayers who are starting to express concern.

Just in the past few days it has leaked out that the European Union is exploring the idea of freezing bank accounts in the event of a run on the banks. This comes in the wake of a failing Spanish bank that went under after depositors rushed to withdraw their funds. Apparently what the EU banking regulators are considering are new regulations that would make it easier for national governments to freeze accounts of big depositors, those with deposits over the 100,000 Euro limit for deposit insurance. That's similar to federal deposit insurance of \$100,000 here in the US.

The argument of the banks is that such a move would just make matters worse by encouraging depositors to pull their money out at the first sign a bank is in trouble. & actually even more serious measures are being considered including limiting the amount of withdrawals in a given

period to a small amount just large enough to cover daily needs. This would apply to all depositors, not just the wealthy.

What's significant here is the fact that the EU is even talking about such measures when ostensibly world markets are steady with extremely very low volatility in trading while the price of stocks continues to go up. The central bankers seem to be a lot more savvy about risk than many people would give them credit for. Fed chairwoman Janet Yellen & others are warning that investors have not grasped the deeper significance of recent increases in interest rates. It means that the value of all those trillions of dollars worth of super low interest bonds issued as part of quantitative easing could suddenly be worth a lot less.

Central bankers speak in carefully calibrated terms but the unstated implication of that is that bond & stock markets could crash. The Bank of International Settlements is more blunt. The BIS is known as the 'bankers' bank' because it handles trillions of dollars in transactions between the world's banks everyday. In June it warned that markets have become irrationally exuberant, resulting in even more risk taking during a period of inflated asset prices.

So if there's all this danger building why is trading volatility so low while stock markets are hitting new highs. Some have claimed that it's because for the first time in history central banks are propping up markets by secretly buying & selling assets. That's why some stocks have unheard of valuations, as much as two hundred times earnings. A normal price to earnings ratio might be 10 or 15 to one. The central banks, it is claimed, are determined not to permit another Great Depression & they'll print however much money is needed to prevent it.

Stock traders have caught on to what the central banks are doing which in effect means for them a risk free world. They can bid up stocks to the Moon without having to worry about a crash.

Other observers have a different theory. It's the high speed computer trading that's keeping the markets on a steady keel. These computer algorithms react so fast to any fluctuation in stock price that movements either up or down wash each other out. More & more big investment banks & hedge funds are firing their human analysts & switching to such software driven trades that such an explanation is not beyond the realm of possibility.

My own belief is that it could be some of both. But regardless, sooner or later some event or rumor or computer glitch or cyberattack will trigger a rush to the exits & no amount of central bank intervention will stop the plunge. At some point the 'smart money' crowd will just decide to sell everything & go to cash & the game will be up. My guess is that those high speed trading algorithms already have such an eventuality built into them. The telltale sign will be when across the board selling volume spikes to record levels in a matter of minutes along with almost simultaneous 'buying' volume. That'll be the sign the central banks are making a desperate last ditch effort to try & prop up the market.

The market in question will then be shut down because of what will be termed a 'computer malfunction' but the effects will be instantly transmitted worldwide. Contagion will take over & it'll be unstoppable. Which is why I believe that according to Bloomberg almost one third of the money deposited in the Wealth Management Division of UBS, Europe's largest bank, is still in cash, almost ten years after the Crash of 2008.

By the way all this money printing has had a terrible knock on effect in terms of global wealth concentration & the possible return to feudalism on a scale never before seen in human history. Is it any wonder why average people have so little trust in the so called experts. If those folks were really as smart as they thought they were they should have been able to see the political &

economic disaster they were creating.

Let's take a break & when I come back we'll find out how the big internet companies are using advanced psychological techniques to manipulate us. I'm Roland B. Hunt & you're listening to The Next Chapter, a production of the North American Service of Radio Alexandria.

PSA: Listener feedback

Feedback is important here at Radio Alexandria so I hope you will take the time to email or write & share your ideas. Did you find yourself agreeing in part & disagreeing in part? Did we make you cheer or did you want to throw something at the radio? The whole point of Radio Alexandria & The Next Chapter is to get people thinking. Send us an email & tell us your opinions. Please be concise & to the point. We can't respond personally to every email but with your permission we may include some of your comments & ideas in future broadcasts. You'll only be identified by first name & the name of the state, or province, or region you're writing from.

Radio Alexandria is named after the greatest library in the ancient world, one that was founded several hundred years before the common era. That center of learning was burned to the ground by religious zealots in the fifth century AD so almost all of its books were lost to posterity. Radio Alexandria's mission is to make sure that doesn't happen again. The goal is to spread ideas far & wide across the globe to the remotest village & mountain top, ideas about government, society, & the future of our species on this planet.

As a radio station we can't physically spread the great books of today but we can share the ideas contained within them. Our goal is not to tell listeners what to think but how to think, how to use logic & evidence to make rational decisions about the future drawing upon lessons learned from the past.

We live in a busy world so if you tuned in late or have to leave early you can always listen to today's program as a podcast. Just go to radioalexandria dot net & click on programs. Transcripts of all the programs in The Next Chapter series are also available on the website. Once again the web address is radioalexandria dot net. If you have comments or questions our email address is radioshipalexandria at yahoo dot com. That's radioshipalexandria at yahoo.com.

One more reminder. Radio Alexandria is in the demonstration of concept phase right now. We're distributing our programming domestically on FM & internationally on shortwave radio while we evaluate the feasibility of buying & equipping a radio ship & deploying it to the central Pacific.

If you know something about shortwave you've probably already figured out why we would choose such a location. It has to do with the physics of shortwave broadcasting. Unlike conventional AM or FM radio, a shortwave signal can travel thousands of miles by bouncing off a layer of charged particles in the atmosphere called the ionosphere.

The signal may bounce between the earth (or sea) & the ionosphere several times before reaching an audience 5,000 or even 10,000 miles away. Sea water to a shortwave signal is like a polished glass mirror compared to a very dirty windshield. It's a thousand times more reflective than ordinary earth. If you want to put a powerful radio signal into Pacific Rim countries like China & Russia using medium sized shortwave transmitters there is no better location than the central Pacific.

The reason for putting Radio Alexandria on a ship is safety. Pacific islands may bring to mind swaying palm trees & white sandy beaches but the reality is the Pacific can be a dangerous place, what with volcanoes, typhoons, earthquakes, & tsunamis. The place to ride those out is not at anchor in a harbor. A small ship like a converted trawler or lightship can put to sea on short

notice & has the endurance to withstand severe punishment on the open ocean.

The programs u hear now ar typical of what u wil hear if we decide to go ahead with the next phase but first we need to know if there wil be enuf liseners to justify such a large project. If u hav som ideas or suggestions for foundashuns or other organizashuns which mite fund a project lik Radio Alexandria pleas feel free to share them with us. Also we're accepting donashuns from liseners so if u wud lik to suport our eforts to build a mor enlightened world just go to radioalexandria dot net, klik on 'programs', & then the 'donate' button.

Rite now our greatest out of pocket expense is paying for airtime. If we had additional funding we cud buy mor airtime to beam Radio Alexandria into Europe & Russia. The longer term plan is to ofer The Next Chapter not only in English but in other languages as wel. The goal is not to mettle in the domestic politics of countries. They hav to solve their own problems. What we at Radio Alexandria ar trying to do is look at issues al modern governments ar confronting & see if there mite be som common solutions.

Transparency is such an issue. It's wun of the best ways to combat political corruption & boost popular confidence in democratic government. There's a major anti-corruption campaign going on in China rite now becaus the curent administra-shun understands that they're not going to be able to keep the Mandate of Heaven unles they govern responsibly.

The USA & other western democracies ar also sufering from a major lack of public confidence in their political institushuns. The presidential elecshun here in the US as well as elecshuns in Europe show deep disatisfacshun with elites & the kind of leadership they hav provided in recent decades.

Humanity is entering a period of profound change, driven by technological forces we hav never befor encountered as a species. Radio Alexandria's mission is to explor solushuns that wil benefit al in society, both individualy & colectively.

In the coming months we may try som crowd funding to begin raising the money to implement these plans. In the meantime al of u as liseners can do ur part by spreading the word. Tell ur friends about our website, transcripts, & podcasts. Also the podcasts ar available free for rebroadcast on non-comercial stations in the US. If u'd lik to see The Next Chapter mor widely available in ur community tel ur local community or public stashun about us.

If u see somthing u think ur friends wud find interesting, copy it off the website & share it with others. Maybe u see somthing u disagree with. That's fine too. Radio Alexandria is not the source of al truth. We're al about looking *for* the truth, wherever it may be & whether or not it's politicaly correct.

By the way free Radio Alexandria buttons ar now available so if u'd lik wun just send us ur mailing address & we'll get wun off to u. U can see a sample on our website radioalexandria dot net. Just klik on 'resources'. The butons ar an experi-ment so supplies ar limited. Our email address once again is radioshipalexandria at yahoo dot com.

If u find value in what we ar trying to do & wud lik to help financialy just go to radioalexandria dot net, klik on programs & then the 'donate' button. Any financial assistance u chose to mak wil be gratefully appreciated. Radio Alexandria is radio for the future. (end promo)

If you're a big user of sites like Facebook or YouTube u need to be aware that u're being manipulated by som of the most advanced psychological techniques known to science. Even if u urself don't spend much time on these internet sites you may have relatives & friends who do. & that's important becaus these sites, whether we lik it or not, ar not only shaping the world views

of individuals but also of whole societies. Most people are not even aware of it.

Tristan Harris knows how the manipulation works first hand because he used to work for one of the giant companies. In this TED talk from a few months ago he explains how it works & what you can do to resist it.

(Insert Harris, T Ted talk: "I want... ..Thank you.")(transcript in standard English)

I want you to imagine walking into a room, a control room with a bunch of people, a hundred people, hunched over a desk with little dials, and that that control room will shape the thoughts and feelings of a billion people. This might sound like science fiction, but this actually exists right now, today.

I know because I used to be in one of those control rooms. I was a design ethicist at Google, where I studied how do you ethically steer people's thoughts? Because what we don't talk about is how the handful of people working at a handful of technology companies through their choices will steer what a billion people are thinking today. Because when you pull out your phone and they design how this works or what's on the feed, it's scheduling little blocks of time in our minds. If you see a notification, it schedules you to have thoughts that maybe you didn't intend to have. If you swipe over that notification, it schedules you into spending a little bit of time getting sucked into something that maybe you didn't intend to get sucked into. When we talk about technology, we tend to talk about it as this blue sky opportunity. It could go any direction. And I want to get serious for a moment and tell you why it's going in a very specific direction. Because it's not evolving randomly. There's a hidden goal driving the direction of all of the technology we make, and that goal is the race for our attention. Because every new site -- TED, elections, politicians, games, even meditation apps -- have to compete for one thing, which is our attention, and there's only so much of it. And the best way to get people's attention is to know how someone's mind works. And there's a whole bunch of persuasive techniques that I learned in college at a lab called the Persuasive Technology Lab to get people's attention.

A simple example is YouTube. YouTube wants to maximize how much time you spend. And so what do they do? They autoplay the next video. And let's say that works really well. They're getting a little bit more of people's time. Well, if you're Netflix, you look at that and say, well, that's shrinking my market share, so I'm going to autoplay the next episode. But then if you're Facebook, you say, that's shrinking all of my market share, so now I have to autoplay all the videos in the newsfeed before waiting for you to click play. So the internet is not evolving at random. The reason it feels like it's sucking us in the way it is is because of this race for attention. We know where this is going. Technology is not neutral, and it becomes this race to the bottom of the brain stem of who can go lower to get it.

Let me give you an example of Snapchat. If you didn't know, Snapchat is the number one way that teenagers in the United States communicate. So if you're like me, and you use text messages to communicate, Snapchat is that for teenagers, and there's, like, a hundred million of them that use it. And they invented a feature called Snapstreaks, which shows the number of days in a row that two people have communicated with each other. In other words, what they just did is they gave two people something they don't want to lose. Because if you're a teenager, and you have 150 days in a row, you don't want that to go away. And so think of the little blocks of time that that schedules in kids' minds. This isn't theoretical: when kids go on vacation, it's been shown they give their passwords to up to five other friends to keep their Snapstreaks going, even when

they can't do it. And they have, like, 30 of these things, and so they have to get through taking photos of just pictures or walls or ceilings just to get through their day. So it's not even like they're having real conversations. We have a temptation to think about this as, oh, they're just using Snapchat the way we used to gossip on the telephone. It's probably OK. Well, what this misses is that in the 1970s, when you were just gossiping on the telephone, there wasn't a hundred engineers on the other side of the screen who knew exactly how your psychology worked and orchestrated you into a double bind with each other.

Now, if this is making you feel a little bit of outrage, notice that that thought just comes over you. Outrage is a really good way also of getting your attention, because we don't choose outrage. It happens to us. And if you're the Facebook newsfeed, whether you'd want to or not, you actually benefit when there's outrage. Because outrage doesn't just schedule a reaction in emotional time, space, for you. We want to share that outrage with other people. So we want to hit share and say, "Can you believe the thing that they said?" And so outrage works really well at getting attention, such that if Facebook had a choice between showing you the outrage feed and a calm newsfeed, they would want to show you the outrage feed, not because someone consciously chose that, but because that worked better at getting your attention. And the newsfeed control room is not accountable to us. It's only accountable to maximizing attention. It's also accountable, because of the business model of advertising, for anybody who can pay the most to actually walk into the control room and say, "That group over there, I want to schedule these thoughts into their minds." So you can target, you can precisely target a lie directly to the people who are most susceptible. And because this is profitable, it's only going to get worse.

So I'm here today because the costs are so obvious. I don't know a more urgent problem than this, because this problem is underneath all other problems. It's not just taking away our agency to spend our attention and live the lives that we want, it's changing the way that we have our conversations, it's changing our democracy, and it's changing our ability to have the conversations and relationships we want with each other. And it affects everyone, because a billion people have one of these in their pocket.

So how do we fix this? We need to make three radical changes to technology and to our society. The first is we need to acknowledge that we are persuadable. Once you start understanding that your mind can be scheduled into having little thoughts or little blocks of time that you didn't choose, wouldn't we want to use that understanding and protect against the way that that happens? I think we need to see ourselves fundamentally in a new way. It's almost like a new period of human history, like the Enlightenment, but almost a kind of self-aware Enlightenment, that we can be persuaded, and there might be something we want to protect. The second is we need new models and accountability systems so that as the world gets better and more and more persuasive over time -- because it's only going to get more persuasive -- that the people in those control rooms are accountable and transparent to what we want. The only form of ethical persuasion that exists is when the goals of the persuader are aligned with the goals of the persuadee. And that involves questioning big things, like the business model of advertising. Lastly, we need a design renaissance, because once you have this view of human nature, that you can steer the timelines of a billion people -- just imagine, there's people who have some desire about what they want to do and what they want to be thinking and what they want to be feeling and how they want to be informed, and we're all just tugged into these other directions. And you

have a billion people just tugged into all these different directions. Well, imagine an entire design renaissance that tried to orchestrate the exact and most empowering time-well-spent way for those timelines to happen. And that would involve two things: one would be protecting against the timelines that we don't want to be experiencing, the thoughts that we wouldn't want to be happening, so that when that ding happens, not having the ding that sends us away; and the second would be empowering us to live out the timeline that we want.

So let me give you a concrete example. Today, let's say your friend cancels dinner on you, and you are feeling a little bit lonely. And so what do you do in that moment? You open up Facebook. And in that moment, the designers in the control room want to schedule exactly one thing, which is to maximize how much time you spend on the screen. Now, instead, imagine if those designers created a different timeline that was the easiest way, using all of their data, to actually help you get out with the people that you care about? Just think, alleviating all loneliness in society, if that was the timeline that Facebook wanted to make possible for people. Or imagine a different conversation. Let's say you wanted to post something supercontroversial on Facebook, which is a really important thing to be able to do, to talk about controversial topics. And right now, when there's that big comment box, it's almost asking you, what key do you want to type? In other words, it's scheduling a little timeline of things you're going to continue to do on the screen. And imagine instead that there was another button there saying, what would be most time well spent for you? And you click "host a dinner." And right there underneath the item it said, "Who wants to RSVP for the dinner?" And so you'd still have a conversation about something controversial, but you'd be having it in the most empowering place on your timeline, which would be at home that night with a bunch of a friends over to talk about it. So imagine we're running, like, a find and replace on all of the timelines that are currently steering us towards more and more screen time persuasively and replacing all of those timelines with what do we want in our lives.

It doesn't have to be this way. Instead of handicapping our attention, imagine if we used all of this data and all of this power and this new view of human nature to give us a superhuman ability to focus and a superhuman ability to put our attention to what we cared about and a superhuman ability to have the conversations that we need to have for democracy. The most complex challenges in the world require not just us to use our attention individually. They require us to use our attention and coordinate it together. Climate change is going to require that a lot of people are being able to coordinate their attention in the most empowering way together. And imagine creating a superhuman ability to do that.

Sometimes the world's most pressing and important problems are not these hypothetical future things that we could create in the future. Sometimes the most pressing problems are the ones that are right underneath our noses, the things that are already directing a billion people's thoughts. And maybe instead of getting excited about the new augmented reality and virtual reality and these cool things that could happen, which are going to be susceptible to the same race for attention, if we could fix the race for attention on the thing that's already in a billion people's pockets. Maybe instead of getting excited about the most exciting new cool fancy education apps, we could fix the way kids' minds are getting manipulated into sending empty messages back and forth.

(Applause)

Maybe instead of worrying about hypothetical future runaway artificial intelligences that are maximizing for one goal, we could solve the runaway artificial intelligence that already exists right now, which are these newsfeeds maximizing for one thing. It's almost like instead of running away to colonize new planets, we could fix the one that we're already on.

(Applause)

Solving this problem is critical infrastructure for solving every other problem. There's nothing in your life or in our collective problems that does not require our ability to put our attention where we care about. At the end of our lives, all we have is our attention and our time. What will be time well spent for ours?

Thank you.

(Applause)

Chris Anderson: Tristan, thank you. Hey, stay up here a sec. First of all, thank you. I know we asked you to do this talk on pretty short notice, and you've had quite a stressful week getting this thing together, so thank you. Some people listening might say, what you complain about is addiction, and all these people doing this stuff, for them it's actually interesting. All these design decisions have built user content that is fantastically interesting. The world's more interesting than it ever has been. What's wrong with that?

Tristan Harris: I think it's really interesting. One way to see this is if you're just YouTube, for example, you want to always show the more interesting next video. You want to get better and better at suggesting that next video, but even if you could propose the perfect next video that everyone would want to watch, it would just be better and better at keeping you hooked on the screen. So what's missing in that equation is figuring out what our boundaries would be. You would want YouTube to know something about, say, falling asleep. The CEO of Netflix recently said, "our biggest competitors are Facebook, YouTube and sleep." And so what we need to recognize is that the human architecture is limited and that we have certain boundaries or dimensions of our lives that we want to be honored and respected, and technology could help do that.

(Applause)

CA: I mean, could you make the case that part of the problem here is that we've got a naïve model of human nature? So much of this is justified in terms of human preference, where we've got these algorithms that do an amazing job of optimizing for human preference, but which preference? There's the preferences of things that we really care about when we think about them versus the preferences of what we just instinctively click on. If we could implant that more nuanced view of human nature in every design, would that be a step forward?

TH: Absolutely. I mean, I think right now it's as if all of our technology is basically only asking our lizard brain what's the best way to just impulsively get you to do the next tiniest thing with your time, instead of asking you in your life what we would be most time well spent for you? What would be the perfect timeline that might include something later, would be time well spent for you here at TED in your last day here?

CA: So if Facebook and Google and everyone said to us first up, "Hey, would you like us to

optimize for your reflective brain or your lizard brain? You choose."

TH: Right. That would be one way. Yes.

CA: You said persuadability, that's an interesting word to me because to me there's two different types of persuadability. There's the persuadability that we're trying right now of reason and thinking and making an argument, but I think you're almost talking about a different kind, a more visceral type of persuadability, of being persuaded without even knowing that you're thinking.

TH: Exactly. The reason I care about this problem so much is I studied at a lab called the Persuasive Technology Lab at Stanford that taught people exactly these techniques. There's conferences and workshops that teach people all these covert ways of getting people's attention and orchestrating people's lives. And it's because most people don't know that that exists that this conversation is so important.

CA: Tristan, you and I, we both know so many people from all these companies. There are actually many here in the room, and I don't know about you, but my experience of them is that there is no shortage of good intent. People want a better world. They are actually -- they really want it. And I don't think anything you're saying is that these are evil people. It's a system where there's these unintended consequences that have really got out of control --

TH: Of this race for attention. It's the classic race to the bottom when you have to get attention, and it's so tense. The only way to get more is to go lower on the brain stem, to go lower into outrage, to go lower into emotion, to go lower into the lizard brain.

CA: Well, thank you so much for helping us all get a little bit wiser about this.

Tristan Harris, thank you. TH: Thank you very much.

(Applause)

Tristan Harris, a former employee of a large internet company. At the end he was talking with TED moderator Chris Anderson. Let's tak a break & when we com back neuroscientist Daniel Levitin wil giv us som ideas on how we can keep our wits about us when we're under a lot of pressure. I'm Roland B. Hunt and u're lisening to The Next Chapter, a producshun of the North American Service of Radio Alexandria.

PSA: Shopping for a good shortwave radio

Many of you are listening to this program as a shortwave broadcast but others are listening to it as a podcast. If u're an internet listener I'd lik to encourage u to invest in a portable shortwave receiver. Somday the worldwide web may not be available. Besides there ar quite a few shortwave stashuns broadcasting to North America, many of them with programs u're not likely to hear on the domestic media.

There are a number of good AM-FM-shortwave sets on the market now, many with advanced circuitry only the military wud hav had just a few years ago. If you've listened much on the shortwave bands u know that it's not like tuning in a standard AM or FM stashun.

Reception conditions can vary greatly even over the span of a few hours or days. That's why advanced features like PLL, digital tuning, and double conver-sion are important. They help bring in weak signals and filter out stronger stashuns on adjacent channels. As u read customer reviews on the web and ar trying to decide between models, be sure to select a radio that is highly

rated for sensitivity to weak signals. When it comes to shortwave listening that's probably the single most important criterion.

If two radios are very close in their sensitivity rating then you may want to make your decision based on other important features like estimated battery life, or keypad frequency entry, or an audio output for recording programs off the air. If you want to listen to ham radio operators you'll need to spend a little more & get a receiver with SSB or single sideband capability. That's a special type of voice transmission pioneered by the hams & now also widely used by military organizations. Without an SSB switch on the radio, the conversations & reports of hundreds of thousands of ham operators around the world will be totally unintelligible.

Lastly, you probably want to avoid inexpensive so-called 'emergency radios' with plastic cranks to provide power in place of batteries. The cranks are usually flimsy & unlikely to last more than a few weeks or months under daily use. Also the electronic circuitry inside the radio itself is usually primitive & out of date.

These crank radios may be okay for AM and FM reception but not short-wave, & certainly not as your primary shortwave receiver. Someday shortwave radio could be your only source of uncensored news & information. If a state of national emergency is ever declared, all domestic broadcast stations will be under the control of the national government. If you want to hear anything other than the official version of what's going on you'll have to listen to shortwave radio & if you're serious about it you'll want to hear what ham radio operators around the world are reporting.

By the way, besides the radio there are three other important items to buy: some rechargeable batteries of the size that fits your radio, usually double As, a battery charger that can run on 12V, & a solar electric panel that also puts out 12Vs. Generally I would stick to high capacity name brand batteries. The charger you want will come with a little power supply that plugs into the wall socket in your house & puts out 12 volts DC. You then connect it to the battery charger. A charger of that design will also come with a separate 12 volt cord so you can charge the batteries for your radio either from the cigarette lighter in your vehicle or from the 12 volt solar panel. Keep in mind that many of the chargers sold at discount stores only plug directly into a 115 volt wall socket so you would not be able to use them with a solar panel.

As for a solar electric panel, if you buy the fold-up portable kind expect to pay up to one hundred dollars for a good one. Just be sure it either has or can be fitted with a plug that will mate with your battery charger. Put the whole system together and you'll be connected to the outside world no matter what happens to cell phones, the internet, satellite TV, local broadcast stations, or the power company. Shortwave radio, in the past, in the present, and in the future, your window on the world. [end psa]

Today we live in a world full of labor saving devices but for some reason that doesn't seem to alleviate the amount of stress in our everyday lives. It sometimes seems that no matter how much we may try to slow down & enjoy life there's always something new & important that demands our immediate attention. & the stress that generates can cause us to make mistakes, sometimes costly ones.

Neuroscientist Daniel Levitin knows from experience that's true & he's done a lot of thinking about how to cope with it. He's the author of *The Organized Mind: Thinking Straight in the Age of Information Overload*. In this TED talk he offers some techniques for making wise decisions when the pressure mounts.

(Insert Levitin, D TED talk: "A few years... ..Thank you.")(Transcript in standard English)

A few years ago, I broke into my own house. I had just driven home, it was around midnight in

the dead of Montreal winter, I had been visiting my friend, Jeff, across town, and the thermometer on the front porch read minus 40 degrees -- and don't bother asking if that's Celsius or Fahrenheit, minus 40 is where the two scales meet -- it was very cold. And as I stood on the front porch fumbling in my pockets, I found I didn't have my keys. In fact, I could see them through the window, lying on the dining room table where I had left them. So I quickly ran around and tried all the other doors and windows, and they were locked tight. I thought about calling a locksmith -- at least I had my cellphone, but at midnight, it could take a while for a locksmith to show up, and it was cold. I couldn't go back to my friend Jeff's house for the night because I had an early flight to Europe the next morning, and I needed to get my passport and my suitcase.

So, desperate and freezing cold, I found a large rock and I broke through the basement window, cleared out the shards of glass, I crawled through, I found a piece of cardboard and taped it up over the opening, figuring that in the morning, on the way to the airport, I could call my contractor and ask him to fix it. This was going to be expensive, but probably no more expensive than a middle-of-the-night locksmith, so I figured, under the circumstances, I was coming out even.

Now, I'm a neuroscientist by training and I know a little bit about how the brain performs under stress. It releases cortisol that raises your heart rate, it modulates adrenaline levels and it clouds your thinking. So the next morning, when I woke up on too little sleep, worrying about the hole in the window, and a mental note that I had to call my contractor, and the freezing temperatures, and the meetings I had upcoming in Europe, and, you know, with all the cortisol in my brain, my thinking was cloudy, but I didn't know it was cloudy because my thinking was cloudy.

(Laughter)

And it wasn't until I got to the airport check-in counter, that I realized I didn't have my passport.

(Laughter)

So I raced home in the snow and ice, 40 minutes, got my passport, raced back to the airport, I made it just in time, but they had given away my seat to someone else, so I got stuck in the back of the plane, next to the bathrooms, in a seat that wouldn't recline, on an eight-hour flight. Well, I had a lot of time to think during those eight hours and no sleep.

(Laughter)

And I started wondering, are there things that I can do, systems that I can put into place, that will prevent bad things from happening? Or at least if bad things happen, will minimize the likelihood of it being a total catastrophe. So I started thinking about that, but my thoughts didn't crystallize until about a month later. I was having dinner with my colleague, Danny Kahneman, the Nobel Prize winner, and I somewhat embarrassedly told him about having broken my window, and, you know, forgotten my passport, and Danny shared with me that he'd been practicing something called prospective hindsight.

(Laughter)

It's something that he had gotten from the psychologist Gary Klein, who had written about it a few years before, also called the pre-mortem. Now, you all know what the postmortem is. Whenever there's a disaster, a team of experts come in and they try to figure out what went

wrong, right? Well, in the pre-mortem, Danny explained, you look ahead and you try to figure out all the things that could go wrong, and then you try to figure out what you can do to prevent those things from happening, or to minimize the damage.

So what I want to talk to you about today are some of the things we can do in the form of a pre-mortem. Some of them are obvious, some of them are not so obvious. I'll start with the obvious ones.

Around the home, designate a place for things that are easily lost. Now, this sounds like common sense, and it is, but there's a lot of science to back this up, based on the way our spatial memory works. There's a structure in the brain called the hippocampus, that evolved over tens of thousands of years, to keep track of the locations of important things -- where the well is, where fish can be found, that stand of fruit trees, where the friendly and enemy tribes live. The hippocampus is the part of the brain that in London taxicab drivers becomes enlarged. It's the part of the brain that allows squirrels to find their nuts. And if you're wondering, somebody actually did the experiment where they cut off the olfactory sense of the squirrels, and they could still find their nuts. They weren't using smell, they were using the hippocampus, this exquisitely evolved mechanism in the brain for finding things. But it's really good for things that don't move around much, not so good for things that move around. So this is why we lose car keys and reading glasses and passports. So in the home, designate a spot for your keys -- a hook by the door, maybe a decorative bowl. For your passport, a particular drawer. For your reading glasses, a particular table. If you designate a spot and you're scrupulous about it, your things will always be there when you look for them.

What about travel? Take a cell phone picture of your credit cards, your driver's license, your passport, mail it to yourself so it's in the cloud. If these things are lost or stolen, you can facilitate replacement.

Now these are some rather obvious things. Remember, when you're under stress, the brain releases cortisol. Cortisol is toxic, and it causes cloudy thinking. So part of the practice of the pre-mortem is to recognize that under stress you're not going to be at your best, and you should put systems in place.

And there's perhaps no more stressful a situation than when you're confronted with a medical decision to make. And at some point, all of us are going to be in that position, where we have to make a very important decision about the future of our medical care or that of a loved one, to help them with a decision.

And so I want to talk about that. And I'm going to talk about a very particular medical condition. But this stands as a proxy for all kinds of medical decision-making, and indeed for financial decision-making, and social decision-making -- any kind of decision you have to make that would benefit from a rational assessment of the facts.

So suppose you go to your doctor and the doctor says, "I just got your lab work back, your cholesterol's a little high." Now, you all know that high cholesterol is associated with an increased risk of cardiovascular disease, heart attack, stroke. And so you're thinking having high cholesterol isn't the best thing, and so the doctor says, "You know, I'd like to give you a drug that will help you lower your cholesterol, a statin." And you've probably heard of statins, you know

that they're among the most widely prescribed drugs in the world today, you probably even know people who take them. And so you're thinking, "Yeah! Give me the statin."

But there's a question you should ask at this point, a statistic you should ask for that most doctors don't like talking about, and pharmaceutical companies like talking about even less. It's for the number needed to treat. Now, what is this, the NNT? It's the number of people that need to take a drug or undergo a surgery or any medical procedure before one person is helped. And you're thinking, what kind of crazy statistic is that? The number should be one. My doctor wouldn't prescribe something to me if it's not going to help. But actually, medical practice doesn't work that way. And it's not the doctor's fault, if it's anybody's fault, it's the fault of scientists like me. We haven't figured out the underlying mechanisms well enough. But GlaxoSmithKline estimates that 90 percent of the drugs work in only 30 to 50 percent of the people. So the number needed to treat for the most widely prescribed statin, what do you suppose it is? How many people have to take it before one person is helped? 300. This is according to research by research practitioners Jerome Groopman and Pamela Hartzband, independently confirmed by Bloomberg.com. I ran through the numbers myself. 300 people have to take the drug for a year before one heart attack, stroke or other adverse event is prevented.

Now you're probably thinking, "Well, OK, one in 300 chance of lowering my cholesterol. Why not, doc? Give me the prescription anyway." But you should ask at this point for another statistic, and that is, "Tell me about the side effects." Right? So for this particular drug, the side effects occur in five percent of the patients. And they include terrible things -- debilitating muscle and joint pain, gastrointestinal distress -- but now you're thinking, "Five percent, not very likely it's going to happen to me, I'll still take the drug." But wait a minute. Remember under stress you're not thinking clearly. So think about how you're going to work through this ahead of time, so you don't have to manufacture the chain of reasoning on the spot. 300 people take the drug, right? One person's helped, five percent of those 300 have side effects, that's 15 people. You're 15 times more likely to be harmed by the drug than you are to be helped by the drug.

Now, I'm not saying whether you should take the statin or not. I'm just saying you should have this conversation with your doctor. Medical ethics requires it, it's part of the principle of informed consent. You have the right to have access to this kind of information to begin the conversation about whether you want to take the risks or not.

Now you might be thinking I've pulled this number out of the air for shock value, but in fact it's rather typical, this number needed to treat. For the most widely performed surgery on men over the age of 50, removal of the prostate for cancer, the number needed to treat is 49. That's right, 49 surgeries are done for every one person who's helped. And the side effects in that case occur in 50 percent of the patients. They include impotence, erectile dysfunction, urinary incontinence, rectal tearing, fecal incontinence. And if you're lucky, and you're one of the 50 percent who has these, they'll only last for a year or two.

So the idea of the pre-mortem is to think ahead of time to the questions that you might be able to ask that will push the conversation forward. You don't want to have to manufacture all of this on the spot. And you also want to think about things like quality of life. Because you have a choice oftentimes, do you want a shorter life that's pain-free, or a longer life that might have a great deal of pain towards the end? These are things to talk about and think about now, with your

family and your loved ones. You might change your mind in the heat of the moment, but at least you're practiced with this kind of thinking.

Remember, our brain under stress releases cortisol, and one of the things that happens at that moment is a whole bunch of systems shut down. There's an evolutionary reason for this. Face-to-face with a predator, you don't need your digestive system, or your libido, or your immune system, because if your body is expending metabolism on those things and you don't react quickly, you might become the lion's lunch, and then none of those things matter. Unfortunately, one of the things that goes out the window during those times of stress is rational, logical thinking, as Danny Kahneman and his colleagues have shown. So we need to train ourselves to think ahead to these kinds of situations.

I think the important point here is recognizing that all of us are flawed. We all are going to fail now and then. The idea is to think ahead to what those failures might be, to put systems in place that will help minimize the damage, or to prevent the bad things from happening in the first place.

Getting back to that snowy night in Montreal, when I got back from my trip, I had my contractor install a combination lock next to the door, with a key to the front door in it, an easy to remember combination. And I have to admit, I still have piles of mail that haven't been sorted, and piles of emails that I haven't gone through. So I'm not completely organized, but I see organization as a gradual process, and I'm getting there.

Thank you very much. (end of talk)

That was neuroscientist Daniel Levitin delivering a TED talk in 2015. He's the author of *The Organized Mind: Thinking Straight in the Age of Information Overload*.

Humanity is living thru a period of profound change but also wun of great danger. Seemingly obscure events can escalate into global conflicts as happened at the begining of World War I. & that was befor the advent of satellite comunica-shuns, ultra high speed computers, nuclear weapons, & a level of interconnectedness we've never before experienced as a species. It's al of these trends taken together that threaten our continued existence.

I'll be the first to admit that thinking a lot about the end of civilizashun can make you depressed. Somtines u wonder if humanity has any future. I want to offer two ideas that I believe wil help u cope. The first I think most everyone can relate to. The second is mor controversial. Som wil lik it whil others wil not.

If the idea that modern civilizashun is coming to an end is something you find disturbing try looking at it from a diferent perspective. Scientists tell us that five billion years from now our sun wil begin to die. At the beginning of that process it wil expand greatly in size until it consumes all the inner planets including the earth. But that is far in the future.

Short of some truely catastrophic event like that killing all living things on our planet, even if our present civilizashun does collapse there will almost certainly be survivors and they will go on to build a new civilizashun. The question is can they learn from our mistakes & not repeat them? In effect we humans wil get a second chance. Our pledge to ourselves each day shud be: I'm going to show my comitment to future generations by helping to insure that next time time we get it rite.

I said I wud offer two ideas to help u keep ur spirits up during these difficult times. The

second is very much tied to wun's beliefs about Ultimate Reality. Different people hav diferent beliefs on such matters & we shud respect them. All I can say that after thinking about religion & spirituality for mor than sixty years I personally hav cum to the conclushun that probably what we experience as 'life' & the 'physical world' is just wun level of consciousness among many.

We cum to this level many times to learn new lessons, after which we return to a higher level of consciousness to reflect on our experiences & prepare for the next life & the next set of lessons. Which means that in each life we ar here for a purpose. We chose to be here at this particular time to experience this set of challenges. So let's get to it and do our best to meet them, each & every day.

Today I believe there's enuf evidence to suport the idea that we ar probably not alone. Other inteligent life has likly evolved elsewhere in the universe & that probably means we ar not the first to face these challenges. Som species no doubt found solushuns to them while others did not & perished.

If we humans ar to hav any hope of longterm survival we need to both start thinking of ourselves as an inteligent species & then begin acting like one. If we can spread the idea that we ar members of wun inteligent species among many in the universe, working toward a goal of greater enlightenment...if we can spread that idea to the remotest village and most isolated hamlet on our planet, then no matter what catastrophe mite befall us in the coming years, those who survive wil hav a comon visshun of humankind, a shared ideal of who we ar & where we want to go in this adventure we cal life.

This is our planet & we ar its stewards. Everywun has a part to play in the drama that is human existence. & that's what Radio Alexandria is al about. U, our liseners, ar the wild cards. History cud wun day turn on ur knowledge & insight. Until next time think deeply & act wisely. The future is in our hands Team Humanity. Let us embrace it! (music up until end)
(anncr:) U've been lisening to The Next Chapter with ur host Roland B. Hunt.

A transcript of this broadcast is available at our website radioalexandria dot net.

Tune in again next week at this time for a new explorashun into alternative futures on The Next Chapter, coming to u from Radio Alexandria.

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Definitions of commonly used terms on The Next Chapter:

The Hunt Paradox, sometime called the Strangelove Paradox, was inspired by the famous 1964 motion picture *Dr. Strangelove or How I Learned to Stop Worrying & Love the Bomb*. The mor advanced an inteligent species becoms the mor likly it is to destroy itself.

The Hunt Paradigm is a conjectural premise that states there ar quite a few carbon based inteligent species in the universe. After reaching a certain level in their evolushun they al go thru a similar process of development until the point they encounter the Hunt-Strangelove Paradox. som find a solushun to the paradox & advance to a still higher level. Others do not & destroy themselves.

Note: It is not necessary that the conjecture be tru. It is merely a useful mental construct for integrating ideas about evolushun with ideas about the rise & fal of civilizashuns.

