## The Science of "Aha!" Moments with Alex Soojung-Kim Pang (Transcript)

## **PODCAST**

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(Transcript) Listen to: The Science of "Aha!" Moments with Alex Soojung-Kim Pang (Transcript)

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**Chris Congdon:** We've all been told that hard work is the key to success, and that if something's not going well, you just need to work a little bit harder. But our guest today, Alex sj Kim Pong, is actually going to challenge that idea and he's going to tell us about how we can actually get more work done by being really intentional about our rest. And he doesn't just mean sleeping. Welcome to Work Better, a Steelcase podcast where we think about work and ways to make it better. I'm your host, Chris Congdon, and I'm with our producer Rebecca Charbauski.

## Rebecca Charbauski: Hi Chris.

**CC:** Hey Rebecca. I think we can both learn a little bit from Alex and his unique perspective on the relationship between rest and work.

**RC:** Are you saying we don't get enough rest, Chris?

CC: I am.

**RC:** Yeah. I think we can learn a lot from Alex. He has spent the past 20 years studying people, the future of technology and its impact on work. He is a professional futurist with a PhD in the History of Science, a visiting scholar at Stanford and Oxford, and he's written four books, so I wonder if he gets enough rest? Those books caught our attention, a couple of the key ones there we want to mention, The Distraction Addiction and Rest.

**CC:** Yeah, and if you enjoy this conversation with Alex, we'd really appreciate it if you could like us or share this episode with a friend or a colleague. Alex, thank you so much for joining us on Work Better.

**Alex Soojung-Kim Pang:** Thank you very much. It's a pleasure to be here.

**CC:** A little background for the audience you and I met about a decade ago at a conference, and I'm perfectly okay with the fact that that was maybe more memorable for me than it was for you at the time because I get that, but you were working on or had just released your book, the Distraction Addiction at the time. So it was super memorable for me because I was really fascinated by that. And I do want to ask you a little bit about it, but today I really want to start out focusing on a different book that you did on kind of a related body of work about rest, which happens to be the title of your book as well. I know for a lot of our listeners the idea that rest is really kind of the opposite of work, but you'd argue otherwise. And I'm wondering if you can tell us a little bit, Alex, about how you think about rest and why you think it's more integral to work than some people think.

**ASP:** Sure. So I think that we tend to think of rest as either work's opposite or almost a sort of negative space that's defined just by the absence of work. The problem that we have of course is that that negative space is almost gone these days. We live in a world where essentially we carry our offices around in our pockets and some ridiculous percentage of us check our email within what, 30 seconds or a minute of waking up seconds. And so what this means is that we need to be a little more conscious about and think a little more rigorously about the place of rest in our lives in order to have it. But it's also important to think about what rest really is. And we often think of rest as basically passive. It's just sitting on a sofa with a bag of snacks in one hand and the TV remote in the other, and that has its place, but really the most restorative kinds of rest, the ones that provide the biggest recharge of the mental and physical batteries energy that we spend when we're working really come from more active things. So exercise walks, working in the garden, things of that sort.

CC: Yoga.

**ASP:** Yoga's a terrific example even though I'm terrible at it, but I still get a charge out of it. And likewise that looking over not just days but over seasons in our lives that things like really serious hobbies, engaging times turn out to be restorative in ways that we often don't appreciate. The other important thing is that there is a tighter relationship between work and rest in the sense that rest doesn't just recharge of our energy, but it also can provide a place in which we rediscover the things that we love about work when it's going really well, which can help support us in those times when the work is not going well. But also on a daily basis for people who are creative, who have to solve lots of problems, layering periods of work and rest through your day can provide an opportunity both to recharge, but also to give your kind of creative subconscious a chance to work on problems that you haven't been able to solve at the keyboard or heads down.

And so it provides a space in which part of your mind is able to work on problems and come up with solutions that your conscious self has not been able to. And this is actually something that people like Nobel Prize winning scientists and authors and composers discover and weave into their daily routines. And I think it's something that for all of us who work with our minds who do work, that requires judgment and empathy is a great thing to be able to incorporate into our own daily lives and our order of our own daily work routines.

**CC:** So Alex, I always thought that when I am at rest, that brain is at rest too. That my brain is just, is that accurate? Am I wrong about that?

**ASP:** It certainly feels that way, right? That your brain is just kind of shutting down. But in fact, it's not. What brain scans and neuroscience tell us is that actually when we let our minds wander, you're not focused on any particular thing, but let's say you're folding laundry or doing something that doesn't require a lot of attention. It's not that our brains get quiet, but rather that different parts of our brains start to work together. This is something that scientists call the default mode network, and it's something that literally can activate in the time it takes you to blink your eyes. The brain really wants to go back to this mode. And what's important about it is that the default mode connects together regions of the brain that are associated with visual thinking, with thinking about the past and also creativity. And so this we think is one reason that in those moments when you're not really thinking about or of anything in particular, sometimes you'll have these aha moments when the answer to the question will suddenly come to you, who is the actor in that movie and that other thing, and it's on the tip of your tongue and two minutes later it suddenly pops into your head. That's the default mode network continuing to work on a problem even as your conscious attention is somewhere else or is nowhere. And that is a small version of the phenomenon that's responsible. We think for much bigger insights and discoveries in science and math or other creative endeavors.

CC: So it's my default network mode. Right,

ASP: Right. Default mode network.

**CC:** Default mode network. Sorry, I inverted that. That's at work. When I have those moments as you described, like I'm trying to solve a problem, I might feel a little bit stuck and then I step away from it, I do something else, whether it's folding, laundry would not be top on my list, but if it's I do something else and then all of a sudden my brain does it, that's the brain continuing to work even while I'm not conscious of it. Is that right?

**ASP:** Exactly. Okay. So our brains actually don't look less active. It's not using less energy when we're in that mode than when we're taking an exam or listening very closely to a conversation. Energy consumption drops maybe five or 10% at most.

**CC:** Interesting. So I want to go back to when you first even wrote both the distraction, addiction and Rest. It was before the pandemic. And I'm just so fascinated by that because it feels like those topics are more relevant today than ever. And I'm wondering what you are seeing that maybe the rest of us didn't even have on our radar yet. Why do you think that is? That work that you've done for a while now really seems like it's resonating?

**ASP:** I suppose the pessimistic answer is that the books failed because we're still talking about them because these are still problems that we're having. If people had just listened to them and would've put them into practice, then distraction, addiction and rest could sit in...

**CC:** Our problems would be over.

**ASP:** ...and they would be sitting in a library like samples of smallpox vaccine waiting to be thought out in case people get distracted again or start to overwork. But I think that we've been engaged in a kind of gigantic cognitive experiment over the last more than a decade now, trying to figure out how we can use these incredibly promising and in many ways, powerful technologies to help us be smarter, to help us have better lives. But at the same time, there are others among us who have been figuring out how they can use these same tools to nudge us to buy subscription boxes of clothes or other things, or get us watching one more episode of a TV show.

**CC:** Not tuning out of a TV show, making sure that we stay hooked.

**ASP:** Exactly. Yeah. And so the same technologies that can help us be smarter also offer an opportunity for social media companies, for entertainment companies to try to nudge us to do things that they want. And this turns out to be something that if you can figure out how to do it is incredibly Titan profitable. Facebook, Netflix, they've made billions and billions of dollars essentially figuring out how to better distract or redirect our attention. And so the reason that we still need the lessons of the distraction addiction, every time you go onto your phone or go onto social media, you're basically engaged in a knife fight with a hundred PhDs in behavioral science who are basically AB testing every element of your online experience to try and get you to do new things. Likewise, I think that while the pandemic has raised all kinds of questions about how we work and raised opportunities for us to rethink it in the years before then overwork had gone from being an occupational hazard of certain professions to being almost like a public health problem. So I think that figuring out how to rest well is a challenge for lots of people, but it's not made easier by a world that tells us that the way to be a success or the way to find your passion is to rise and grind, never stop working, and to always be on and always be available. So there are big factors, big forces that we need to recognize and construct strategies for countering in our own lives if we hope to recover our attention, to recover our time and to have better lives.

**CC:** And I feel like this topic of rest is just resonating so much with people right now for a lot of reasons. Our research is showing that people's sense of work-life balance has been dropping over the past three years. So while we might've hoped that it would all start getting better for all kinds of reasons, it doesn't feel like that's happening. And so I want to go back to something we talked about a moment ago about this notion about our perception that rest and work are separate or kind of diametrically opposed. Is that an American thing? I know Americans tend to work longer hours and we don't take our vacations and those kinds of things. Do you think that's unique to us or is this kind of a global issue?

**ASP:** It is more of a global issue now than it's ever been. Okay. I think that there certainly are other places that definitely have serious workaholic cultures, right? Japan and Korea have had to invent words for working yourself to death. But even in the Nordic countries, places that have great social safety nets and greater levels of gender equality, free childcare, even in those places, you see a lot of experiments with things like shorter work weeks or other efforts to re-engineer or the relationship between work time and family time in an effort to create a better balance between them. I've also been just personally, I've been struck by this in the last few years, I do talks all over the world and how common when you ask people, how are you doing? The answer, oh, I'm so busy, has turned from something that was mainly heard in the US to a global answer. And that I think tells us something about the degree to which this has become a universal problem no matter where we are.

**CC:** Yeah, I feel like we infected, we infected the world. It's our own little work pandemic that we created here, which isn't funny, but one of the things that you talk about that I find really interesting, first of all is this notion of the morning routine. I wouldn't call myself an early, early morning person. I'm very envious of my colleagues who are. But on the other side of that you also talk about the Nobel Laureates and other people who've been highly successful have this habit of a nap, like taking time in the afternoon to be able to nap. And I'm curious what you think because not all of us have the flexibility or even a safe place where we could say we could go and rest in that way. So what do you think are some of the biggest opportunities for weaving rest into our work and our workday?

**ASP:** That's a really good question. I think that first of all, studies tell us that the average American knowledge worker loses between two to three hours of productive time every day to overly long meetings, to technology driven distractions or to other kinds of poor processes or routine work. And so in a sense, we're spending, let's say eight to 10 hours per week, just like waiting for the copier to warm up and wondering why we're sitting here in this meeting and what the agenda is. So what this means is that in our daily lives, there are periods of time that maybe we can recover, that we could spend instead on basically recovery. And some of this is stuff that we have control over ourselves, right? The couple hours a week that many of us confess to spending on social media during working hours could be better spent going for a quick walk or doing other things that give our minds a break.

**CC:** Are more restorative.

**ASP:** Exactly. I think also that people who don't have a lot of control over their time but who manage to stay in their careers for long periods tend to be people who have really good boundaries between of work life and personal life, and who often have hobbies or other things that are really engaging and keep them busy in their off hours. It's harder to worry about that conversation that you had at work that didn't go very well if you are rock climbing or lifting weights. So having something that is immersive is really great. And then finally, I think that there is, it's important to recognize that we all have these challenges with overwork, with distraction, with burnout in the workplace. And that suggests that maybe it would be good to solve these problems together rather than try and then see these as things that just coincidentally happen to afflict every single one of us in the office.

And places that have done things like implemented nap pods, again in places that are seen socially as and physically as sort of safe within the office or who have shortened the work week itself and given time back to people, I think illustrate the ways in which the most potent form of self-care at work can actually be collective action. That solving these problems together produces strategies or policies or solutions that are more enduring, that work for more of us and that we all have permission to make use of. So that's the other really powerful way to solve these problems is to solve 'em together.

**CC:** So another thing that I would really appreciate your take on is the question of weekends and vacations and the right strategy. I think it's pretty well documented if you think about sleep, that if you go without sleep during the week, it's not a good plan to sleep for 18 hours on the weekend, that's not going to work. And I'm wondering from a vacation or a weekend strategy, if there's a parallel there, should we be taking more intermittent moments of rest or should we just work like crazy for three months and then take a vacation and totally tune out? Is there a right way to vacation?

**ASP:** The first thing I'll say is the only wrong vacation is the one that you don't take.

CC: Oh, hello? Yeah.

**ASP:** And between school calendars and spouses schedules and other things, there are all kinds of constraints that we have to juggle in order to get vacations. But in an ideal world, if you were just following the science, what you would do is a vacation of let's say about 10 days. So weekends and then full week about every three months, every three. And that's because the pleasure that you get from a vacation peaks around let's say day seven or day eight, but doesn't really increase very much after that. So you're not twice as happy two weeks into a vacation than you were a few days prior.

**CC:** So interesting.

**ASP:** And then the second thing is the benefits of a vacation, right? The happiness charge that you get generally lasts a month or two. And so that means that if you want to use vacations to maximize your happiness, you would do them on this regular basically three month schedule or so. The other thing is that it tends to encourage you to do vacations that in a way are a little bit more modest. It's not the marquee vacation where you're going snorkeling for three weeks and everything has to be perfect. And if it rains for a couple of those days, it's a disaster because this is your one time in the year or two, get out smaller ones. If something goes wrong for a day or two, you're going to be back in a couple months. So in a sense, the rewards are more constant, the stakes are lower, and so if things go wrong, and of course something always will happen, it won't feel like a gigantic disaster in the way that it does when you're on this one giant vacation.

**CC:** This one big moment. Yeah, thank you. This feels like therapy for me right now. I started out the new year with a, I don't usually make resolutions, but I thought maybe this year I would actually take all of my vacation, which is, I shouldn't laugh about it. I mean, it's an issue. So the question that I have coming from that is can we actually train ourselves to rest our brains? Is there a difference in terms of some of the things that we should or shouldn't be doing? I assume that doom scrolling is not a form of restoration, but is there a way to train our brains?

**ASP:** The answer is, the answer is yes, and it's by just practicing. So the secret is that our brains will learn how to do this, or if you give them time, this basically is what brains do. They learn stuff, they cut new neural pathways, new connections, and there are no brain exercises that will help you rest better. But if you do it on a regular basis, you help form the habit, then actually there is at least anecdotal evidence that your brain will get better at recognizing when you are about to rest, when it will have time, for example, to switch on the default mode and start working on that unsolved problem. And this is one of the reasons that highly creative people often have fairly strict routines about when they work and when they take, because it looks like what's going on is that not only by immediately moving from work mode to rest mode, are you able to keep in mind all this stuff that's running around in your head that your creative subconscious can then grab hold of and try and arrange into some new patterns.

But also the fact that you're doing this regularly makes it more likely that your creative mind will take over, will recognize when its turn and kind of take over and work. I think it was Pablo Picasso who said that the muse exists, but it has to find you working. The idea being that number one, you do this day in and day out, and number two, that inspiration. It's not that inspiration happens and then you rush to the easel and you work out these ideas. You start work, and then the inspiration comes once you get into flow. That suggests that if you are looking for those kinds of ideas, the thing to do is to have a regular routine that keeps you on a regular basis working that gives you plenty of time also to rest and recover and thereby or gives both your conscious effortful self an opportunity to do its thing, but also gives that otherwise unpredictable or to creative mind an opportunity to do its thing too.

**CC:** Yeah, just as you're talking, Alex, I can't help but think culturally, I think some of us might feel guilty incorporating rest into our day that we might feel like we're slacking if we do that, and that's not okay. But what I'm hearing you say is that we should get rid of that guilt and actually recognize that allowing our brains that time to rest is actually going to help us to be able to get into flow to solve those problems. Is that right?

**ASP:** Absolutely. It is only fairly recently in human history or even American history that we have discounted it to zero or to the value of rest. We talk about having a puritan work ethic, but the Puritans actually we're really strict. They may have worked hard, but there was a time in the week there was...

**CC:** A day of rest.

**ASP:** Exactly. They had a day of rest. Likewise, there was a wonderful article, I think from 1912 in the New York Times, asking how much should a busy person rest that asked a bunch of railroads, executives, bankers, politicians, and the answer came back something like two months. That was how much vacation you ought to take. And so in a period when you're having the industrialization of America, the building of the railroad trusts the infrastructure of modernity. This is led by people who assume that building these things is hard work and you need a lot of rest because of it. But even if you tend to take a more utilitarian view of rest, there are tons of studies that tell us, for example, that people who take regular vacations actually have better careers than people who do not. We assume that if we stay in the office, we'll be recognized by our bosses, we'll move up the ladder faster.

But people who take vacations tend to be healthier, they're happier, they are more productive, and therefore, over the long run they have better work outcomes and also better personal outcomes than those who do not. Likewise, the assumption that you can get more done working a 14 hour day than an eight hour day is wrong. Going back at least a hundred years. There are studies that tell us that after about eight hours or so, our capacity for actual productivity begins to drop off a cliff. The problem is that as you get more tired, your ability to recognize that you're not getting as much done also goes down too. So your capacity for both production and kind of self-observation, take a nosedive together. And this is true for whether you are working in a factory or a hospital or you're a teacher or a computer scientist. Those long hours actually are things that we can sustain for brief periods, harvest season during exams, but it's not a way to do good work, and it's not a way to get ahead in one's careers over time.

**CC:** So on that note, there's another question that I want to ask you about the afterword. You wrote a new afterword to the book Rest and it's really about aging successfully. And just as we have kind of thought that work and rest are counterintuitive, I think there's also this narrative that the idea of continuing to work as you age, that maybe that's a bad thing, that you shouldn't be doing this, this is the time in your life and you should totally let it go. And I'm just curious, what got you thinking about this topic of aging successfully and tying it to this notion of rest?

**ASP:** Basically, it was me getting older myself.

**CC:** Welcome to the club.

**ASP:** Yes, exactly. More seriously in the last sort of eight years that the book came out, both of my parents died.

**CC:** I'm so sorry.

**ASP:** It happens to all of us. And my dad was 84 and he said near the end, I survived the Japanese empire, so it's really okay. But I had observed when I was writing rest that a lot of the people I wrote about lived a really long time and they were still producing stuff in their seventies and eighties, and I honestly didn't think that much about it. But that was something that as I got older, felt like actually something I wanted to know more about and something I wanted to see if I could emulate myself, at least push the odds a little bit more in my own favor. And basically, there's been a lot of work on successful aging or healthy aging, the idea that there are things that you can do earlier in your life that reduce the risk of dementia and other chronic diseases that keep you physically or more capable of doing the things that you want to do, so that finally when the end comes, it's pretty brief rather than long and drawn out. And it turns out almost all of the things that creative people do in order to extend their creative lives are also really good for just extending our lives and improving the quality of our lives. Doing things like having a good sleep schedule, taking regular naps, and having serious hobbies. These are all things that improve not just our capacity for work, but they tend to improve our families, our quality of life, and the quality of our lives later on as we age.

So this was, for me, a really happy discovery. It means I take this stuff even more seriously than I did when the book first came out. It's gotten really, really personal for a whole new set of reasons.

**CC:** Yeah, it's amazing what a sense of our own mortality will do. But since you said happy, I have one last question that I need to ask before we let you go, which is we've been thinking about how there are so many different aspects of the way we work, the places we work, et cetera, that could actually give us a little bit of, dare I say, joy in our lives, because I know that's a counterintuitive notion for a lot of people as well. So I'm curious from your perspective about a moment of joy that you might've had. Is there a story you can tell us about something in your life, in your work life that just sparked a little bit of joy?

**ASP:** Fortunately for me, there are plenty of them. Right.

CC: Well, that's good.

**ASP:** Yeah. I think of my kids, right? My son is a senior in college applying to graduate school. My daughter's been out for a couple of years and she has taken up the occupation that my wife has practiced for 20 years. They're both teachers. And to see her following in her mother's footsteps and to see them being able to shop about how to deal with students or administrators, how to solve the kinds of everyday problems of the craft, this is something I find that really deeply, deeply satisfying. And it is one mark of a kind of change in a relationship that you have with your adult children if it goes well, where they evolve into people with whom you have new things in common. And there were few things that can bind generations together more than a common vocation. And so to see her doing this for me and to see her doing it well is to me, a real source of joy.

**CC:** Yeah. That's cool. Well, and I would also imagine that our listeners who are educators would also say that it's really a vocation where you probably have plenty of moments of frustration, but you can also experience a lot of sense of meaning and purpose, which I think is really how you get to those moments of joy when you can feel that in your work. So Alex, it has been just such a delight to get to talk to you again and to have you here with us on work better. So thank you so much for making the time to be on the show today.

Tlt's been a real pleasure, Chris. Thank you very much.