Thinking Gets A Rethink

Interview excerpts with
Thad McIlroy, Paul Sweeting, Nadim Sadek,
Mairéad Pratschke, Tom Chatfield

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KENNEALLY: Welcome to CCC's podcast series. I'm Christopher Kenneally.

In the final weeks of 2023, Velocity of Content is looking back at the past twelve months of programs.

"I think, therefore I am," the famous formulation of René Descartes, is the foundation principle of Western philosophy. Thinking is uniquely human. It defines us as a species – *Homo sapiens*, the thinking human.

Now comes a plot twist. What if machines can be taught to think just as we do? The emergence of ChatGPT and other generative AI technology moves the question from pure fantasy to just short of reality – for now, anyway.

In the previous decade, self-publishing caused the most disruption for traditional publishers, especially in trade books. In January, I asked publishing technology analyst Thad McIlroy whether we are likely to see anything as disruptive in coming years. He was ready with a prescient response.

McILROY: It's a question that's well worth asking and one that I hadn't really looked at head-on until you posed it. I guess a couple points that I would make. Self-publishing clearly has been enormously disruptive, by the term that we would use disruption in the startup sense. Though we don't have exact figures, it's a $4 billion, $6 billion, $7 billion industry, depending on how it's defined. And when you consider that trade publishing as a whole is less than a $15 billion industry, self-publishing is a very significant sector financially. That is enormously disruptive in that sense.

How, then, would we say what the next level of disruption might be? Is it an economic disruption? Is it the number of players, the number of firms that come into the field? Those certainly would be some of the factors. The technologies that I point to, and the one that I keep

coming back to even more than just the few months since the report's been published, of course is anything to do with artificial intelligence.

What we've seen and is much discussed these days – the GPT-3 for language generation and the DALL-E for image generation – many people are saying that that could be enormously disruptive. The jury's still out. Clearly, the technology is fascinating and fantastic. If indeed most writers begin to use some of these tools routinely in their writing, even if that doesn't have enormous economic impact, wouldn't that be even more disruptive if we changed the way that books are written, not merely the way they're published and sold? So yes, potentially there's – regardless, I look forward to the next disruption. It couldn't be more fun from my perspective. KENNEALLY: In Hollywood this spring, film writers became the most prominent opponents to powerful artificial intelligence tools. In May, members of the Writers Guild of America began walking picket lines in Los Angeles, largely over worries that studio bosses would use ChatGPT to write jokes and dramas. The union demanded of producers that AI can't write or rewrite literary material; can't be used as source material; and that contract-covered material can't be used to train AI.

Questions about the role of generative AI technology invariably focus on intellectual property law, both in the so-called training of large language models like ChatGPT and in the output of works, including text, images, and even videos. Concurrent with the Writers Guild strike, "Variety" published a special report on Generative AI and IP law. Its author, Paul Sweeting, explain What about the new technology led the writers to vote to go on strike.

Are you surprised, Paul, that AI and authorship is a central issue in the WGA strike? ChatGPT only became a household word months ago. Did that anxiety erupt overnight, or has this been coming to a slow boil for a while?

SWEETING: I'm not surprised at all that it would be an issue in the strike. It's sort of the issue in just about all of the creative industries at this point. It's hit everyone like a ton of bricks.

ChatGPT is based on a model that was actually developed two years earlier, and the company behind it, OpenAI, had made it available only on a selective basis. What's changed was late last year, for reasons they never really articulated that I've heard, they decided to commercialize this technology in a big way. So they sort of combined the model that they had built with a interactive chatbot so that people can put in prompts and have it respond and released that to the public. And it became overnight a phenomenon. But it's like they say in the music business – it takes 10 years to be an overnight phenomenon.

In fact, a lot of writers are themselves using it at an early stage of the process for ideation, the development of ideas, as are artists working in other media. But the concern for the Writers Guild is that studios will rely on this sort of technology to generate the basic script for a movie –

the story, the characters, the basic dialogue – and then just hire writers on a basically day labor basis to come in and punch up what the machine has created. It would significantly devalue what writers do and would turn that sort of work – or their concern is that it would turn what they have been doing for a living for years into a form of day labor, basically.

KENNEALLY: What about the studios, Paul Sweeting? Do they see generative AI as a real opportunity for them?

SWEETING: Well, if you believe the writers, (laughter) it's an opportunity for them to save money on writers. But generative AI is already playing a role within the movie production process, and it's only going to play a more prominent role as the technology advances. It's possible today with the technology that they have to create an entirely synthetic performance by an actor. You can have an actor appear in a scene – or appear to appear in a scene – without that actor ever having been on the set using previous footage as a sort of starting point and then using AI to create an entirely realistic-looking performance by somebody who was never in front of the camera. And it's also, of course, being used in special effects and all sorts of areas.
It's also being used sort of before the production process has begun and has been even before these current generative AI models came on the market. Studios have been very quietly using AI to essentially test-read scripts and asking the AI to make predictions about its commercial possibilities or potential and even weighing in on casting and various other aspects of it. So AI has been there for a while in Hollywood, and it's only going to become a more prominent part of the production process and the pre-production process as the technology continues to advance, which it is at lightning speed.

KENNEALLY: "Tracing the histories of publishing and AI, *Shimmer, Don't Shake* argues that despite risks of negative disruption, responsible implementation of AI aligned with publishing's core creative mission offers valuable opportunities, and the industry should embrace AI's next wave through evolution, not resistance, to allow human and artificial intelligence to complement each other."

At least that's what Claude says – Claude, the AI chatbot that can digest a report or a book, then summarize it and answer questions. *Shimmer, Don't Shake* human author Nadim Sadek lets Claude the machine write the closing chapter of his new book from Mensch Publishing, distilling the work if you don't want to read it all.

Sadek, a serial entrepreneur who has worked in fields as disparate as market research and whiskey distilling, has also just launched his latest company, Shimmr.AI, a service that produces a unique DNA print for any book. Shimmr's book DNA becomes the catalyst for online advertising aimed at expanding the book's reach and resonance.

Nadim Sadek entwines the histories of AI and book publishing to make his case that AI technologies can complement, and not necessarily replace, human authors, editors, and publishers.

In your new book, Nadim Sadek, you imagine AI and publishing interacting courteously like diplomats. Your own DNA has a diplomatic strain. You identify as half-Egyptian, half-Irish, and you were raised around the world in what you call a United Nations family. How does that life experience offer a path forward for publishing as it enters the age of machines?

SADEK: I think if there has been a beneficial effect of growing up around the world in many cultures – and I feel I'm very privileged to have been exposed to so many different influences in life – I think it is that it makes one more tolerant. I think it is that one hears with more beneficence people's different points of views, even if they're in great opposition and even if there's heat and friction to the whole thing. And one then tries to find a constructive path through it.

Again, I don't want to pretend that I'm somehow so virtuous that I always make good things out of what can be bad, but it has enabled me to look at something like AI, which to me seems like an absolutely certain major disruption in civilization, and say mainly how do we shimmer with this, rather than shake? How do we quiver rather than quake? How do we see this positively? And I think it's easy to begin to see the positive when you think of it augmenting human effort rather than replacing human effort. It would be naïve to think that there will not be redundancy of some things, as there have been with every innovation for millennia. There will also be new jobs created by this innovation.

I think it'll also largely free us, as we come to accept it, from rote activities, routine activities, anything that's predictable. Things that are predictable are really good for AI, because that's all it is. It's a prediction machine. So where we can say it's really predictable what we have to do here, why wouldn't we put AI to work there, making us essentially freer to be random, to be creative, to be unpredictable, which I think will become the definition of human essence – that we can't be entirely predicted, and that's the beauty of the human existence.

KENNEALLY: Indeed, if publishing is going to shimmer and not shake, as you say, with AI, by AI, how much time does it have to make friends with this new technology? Is there a cutoff moment when this moves from opportunity to apocalypse?

SADEK: Well, let's be modest and humble. We don't know where AI may end up. And there are many very smart people who are doomsayers, who say it'll be terrible and the end of civilization. So I cannot wholly dismiss that. It's not what I subscribe to. It's not what I believe in. But that school of thought exists. So maybe there'll be an apocalypse. I cannot see it coming.

I see an inexorable adoption of the technology. It'll come in, as I suggested, with rote, routine things. It'll increase warehouse efficiency. It'll make rights management simpler than it is. It'll make editing probably a bit more streamlined than it is. It should be able to identify cultural trends so that commissioning editors can actually know the books that are going to be more in the zeitgeist of the world. All of that stuff is just really good to have. Why would we fight against it?

What does that leave us to do? The stuff we really like doing – chatting, writing, imagining, creating, making love, trying not to make war – you know, doing all the good things that we enjoy doing. And I think that's really good. I love the idea that our amazing brains have created this alternative brain that we can train to be a positive companion. For sure, bad actors could make it mean and nasty, and it no doubt will go that way in some cases. But by and large, the positive embrace of AI and the way it liberates us to be more creative, to be more genius-like, just fascinates me and pleases me.

KENNEALLY: A new generation of research assistants arrived in September at universities in the US, UK, and elsewhere. They went to work in classrooms and administrative offices, helping to prepare instruction and guidance for new and returning students.

This year's corps of research assistants perform their tasks for professors and deans around the clock, but you wouldn't notice them on campus. They are found only online, the disembodied denizens of generative AI tools like ChatGPT.

The University of Manchester is the largest single-site university in the UK. At Manchester's School of Arts, Languages, and Cultures, Professor Mairéad Pratschke is chair in digital education. In her lectures and conference appearances, Professor Pratschke urges academic colleagues to recognize the reality that AI has come to school to stay.

Given your experience working at the intersection of digital education, e-learning, and in the humanities and social sciences, how do you think universities should respond to the widespread arrival of generative AI technology in classrooms?

PRATSCHKE: I think the first and really overdue step in many institutions is to issue guidance – is to recognize the reality and issue guidance for staff and students as to how to use it. That's probably the most urgent need that I'm seeing, and there's a real variation in terms of how much is already out there from institutions in terms of guidance.

Also, enable access, in the sense of access to the technology, and also offer training or show people where training is available, because there's a lot of free training out there already. Universities I don't think have to create their own custom training, and in fact, I would say don't waste the resources on that right now. There's lots of great stuff out there already.

But within your own institution, I would say create a network of AI leads, champions, whatever you want to call them, but people who are going to be really the kind of intermediaries between your faculty and staff, your academics, and also administrators, professional staff – someone who's going to be a link in every department or school who can talk up and down and across in every direction about what's needed.

And really create a community of practice. Bring people together to test and try it. And that includes students – very much including the student voice and student input, because they are really filling the need, I think, for some guidance from us at this point as well. So I'd like to just stress that they should be part of the conversation as well, and they're often leading it, as they do. (laughter) Yeah.

KENNEALLY: ChatGPT enthusiasts call for universities to embrace gen AI. Is that the right response as you see it, Professor Pratschke? And if not, how should universities approach this technology?

PRATSCHKE: Yeah, the word embrace is the one that I struggle with a little bit. The truth of the matter is most educators are really, really keen to learn everything about what they need to do to be better teachers and to help their students. That's why they're there. (laughter) I mean, they're always keen to do it. But they are also dealing with very real constraints in a lot of cases – often workload issues, often just lack of time, the systems integration issues I talked about, the resource issues.

Once teachers can learn how to use it to help themselves, maybe lighten that workload that a lot of ed tech companies are promising will happen right now. But the truth of the matter is there is a learning curve with anything.

So yes, educators will, I'm sure, embrace what's good in the right time and at the right pace for them. But again, it has to be in the right context. Teaching is about a lot more than technology. I'm a digital education professor, but teaching is about human relationships, and teaching is relational. In fact, all good learning design frameworks focus on things like collaboration and communities and creating that human connection. They might use technology, but the technology serves that purpose. The technology doesn't come first.

KENNEALLY: In *How to Think*, a follow-up to his bestselling textbook *Critical Thinking*, both from SAGE Publishing, Tom Chatfield explores what it means to think well, and he shares his ideas on the nature of understanding and the joy of creativity. Thinking requires no instructions for any of us, yet Chatfield believes we can be trained to think better and more effectively.

KENNEALLY: Why write textbooks about thinking, Tom? Do students and others today need to learn how to think?

CHATFIELD: As you say, there's something a bit presumptuous about telling people how to think when they've been thinking all the time. At the same time, if you imagine yoga instruction, we breathe all the time, but being told how to breathe in certain ways can have remarkable impacts on mental health and serenity and so on. And in some ways, I think instructing people on critical thinking and thinking techniques is not dissimilar to that. You're surfacing the stuff that we don't even know we're doing, and you're doing it for a purpose, which is to help people engage more rigorously and richly and confidently with the world around them.

KENNEALLY: Well, it does sound like a fabulous way to write and to think yourself, Tom Chatfield. You're a curious man at heart, it seems. And curiosity, of course, lies at the heart of thinking. What does it mean to you and to human beings to be curious about the world? Are there techniques to sharpen our innately curious natures?

CHATFIELD: So we are deeply curious animals, but we're also bifurcated cognitively, by which I mean, in the famous phrase of Daniel Kahneman, the behavioral economist, we think both fast and slow. In order to survive as creatures in the world, we have to do a lot of things without thinking about them much. And that's great. That's fine. No one wants to spend a lot of time wondering whether they should step out of the way of a very fast train that is coming towards them on a level crossing. And nobody really wants to spend 15 hours agonizing about what they're going to have for lunch on Friday or whether they should or shouldn't have an extra coffee. So we need to primarily react to the world fast and appropriately.

In this context, slow, deliberate, curious thinking is this kind of amazing luxury we have as a species. Of course, we have a lot more time for it today than our ancestors did, because we are not, broadly speaking, spending all our time hunting or trying to survive. And curiosity – I'm glad you zeroed in on that word, because curiosity is to be more interested in what we don't know than in what we do know. It's a beautiful thing. Curiosity is a group activity. It's a team game.

Really, my single message that I like to emphasize on thinking is that it's a team sport. It's not about sitting there and being very clever and very disciplined and coming up with amazing ideas. That's a lovely aspiration. But when you're curious – when you're reading, when you're thinking, when you're speaking, when you're reaching for questions – what you're doing is acknowledging that what you've got right now is not good enough, that you need to know more, that what's out there is much bigger than you. It's a very beautiful thing to engage with it openly.

KENNEALLY: Einstein said that imagination is more important than knowledge. Was he right, Tom Chatfield? What is the role of imagination in thinking?

CHATFIELD: I love that quote, partly because Einstein did actually say that. And as we all know from going online, if you believe everything you read online, Einstein and the Buddha and Elon Musk have said pretty much everything that can possibly be said. But this is a great line. Einstein is the paradigm of the genius physicist, the scientist, yet he did say in a 1929 interview that the imagination was more important than knowledge, and he glossed this by saying that it was more important because it spans all that is, all that might be – the entire realm of possibilities, not just the stuff that we've kind of currently proved. I think it's a very powerful point that the imagination is what inspires us to make a leap between what we currently know and what might be true or could be true and also what might be wrong with our current paradigm, our current worldview.

When we talk about reasoning, there are traditionally, I guess, two main ways in which we apply reasoning. We deduce things logically – if A, then B. We use inductive reasoning to say, well, given that water always appears to boil at 100 degrees Centigrade at sea level, there is something going on here that is predictable. This is an induction. But excitingly, we also abduct – which doesn't mean we steal things. It means we leap to conclusions. We move quite beyond the realm of the known to say, well, there might be a general rule here. There might be something larger at play. There might be a speed limit to the universe, which is one of Einstein's great abductive leaps.

So it is for me the faculty of imagination that really defines the miraculousness of human thought. And I think it plays its role in science, because it's not about saying anything can be true. It's not about saying anything you can imagine is true. It's about saying that humans – and perhaps as opposed to artificial intelligences at the moment, certainly – humans have this capacity to imagine the world different and then to set about testing and building and making and interrogating their assumptions in the light of the realm of the possible. So this is a wonderful skill if it's deployed with sufficient critical rigor.

KENNEALLY: A future author writing a history of human technology will take note of November 30, 2022. In a tweet that afternoon, @ sam a wrote – today we launched ChatGPT. try talking with it here: http://chat.openai.com

In a brief thread, @ sam a predicted, "language interfaces are going to be a big deal, i think. talk to the computer (voice or text) and get what you want, for increasingly complex definitions of "want"!

"Going to be a big deal" was an understatement.

In 2023, everyone feels excitement and expectation, along with fear and even dread, over the term "artificial intelligence."

If you have asked yourself, "Is AI going to take my job?" you probably crossed your fingers.

You are just like everyone else. We all want to know what AI will mean for our livelihoods.

My suggestion is not to worry about a machine replacing you – but do watch out for someone who can list AI skills on a resume.

That's all for now.

Our producer is Jeremy Brieske of Burst Marketing. You can listen to Velocity of Content on demand on YouTube as part of the CCC channel and subscribe to the program wherever you go for podcasts.

I'm Christopher Kenneally. Thanks for joining me throughout the year on Velocity of Content from CCC. Best wishes for 2024!