



STM Launches Tech Trends
Interview with Eefke Smit, Director, Standards & Technology, STM Association

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KENNEALLY: A field of sunflowers on a bright summer's day makes a peaceful scene, until you look closer. Farmers, bees, butterflies, and birds are busy going about their businesses. And why are there scarecrows?

Welcome to Velocity of Content. I'm Christopher Kenneally for CCC.

In the scholarly publishing world, spring brings the annual return of STM Trends, a future-forward look at the entire ecosystem from members of the STM Association. Each year, STM Trends fixes the latest innovations in research and publishing in a single image.

For a tour of the farm and an introduction to its denizens, Eefke Smit, STM's director of standards and technology, joins me from Amsterdam. Welcome to the program, Eefke.

SMIT: Thank you, Chris.

KENNEALLY: Well, it's delightful to have you join us, and we want to ask you a lot about this very pastoral picture for the latest STM Trends. It's labeled *The Beauty of Open at Scale*. Before we get to meet the farmer and see what's going on in those hives and in the barn, tell us more about the theme – *The Beauty of Open at Scale*.

SMIT: Oh, sure. What the infographic tries to reflect this year is our expectation that open access will make a big jump in the next three to five years in the STM world. This is likely to have a significant impact on the ecosystem of scholarly publications, probably in a very positive and beautiful way. And as the motto says, it will change things at scale.

Just to be clear, this is not a picture about business models. It is about how the essence of scholarly comms might change. First of all, a lot of content and other research output will be available on multiple platforms, open and free to read. Platforms will scale, can apply tools that scale – think of artificial intelligence, think of text and data mining. Also, the number of different platforms may increase sharply. And different from now, publishers' content and publishers' platforms are probably no longer hardwired together. We foresee a play of platform proliferation and pluriformity – that's quite a phrase. New types of platforms may emerge. Existing ones may sharpen their profile differently. And it will be important for publishers to do the right thing in terms of content syndication, be present on platforms that matter to their users, and to follow the play of interaction between these



platforms. All these sunflowers in this field – each of them is such a platform. That’s how we try to express at scale.

KENNEALLY: Well, as you say, the sunflowers there representing publishing platforms – they are the most striking element in the scene. And among the platforms are preprint servers. I guess I need to ask you why these preprint servers are growing so tall these days.

SMIT: Indeed. Good you mentioned the preprint servers. Well, for example, amid the COVID pandemic, and also in the context of climate change, we saw a surge in the popularity of preprint servers. They offer immediacy and facilitate early claims. They often offer the new scoops in science. But they do not offer peer review, while they do reach the general news media more and more. And there is a bit of tension there. We also see how preprint servers create a strong alliance with social media platforms that draw attention from the larger audience to preprints published. In that way, the public web coalesces with the scholarly web more and more. But at the same time, it also causes more opacity about what are trusted, vetted, and verified research results.

KENNEALLY: And the bees, the butterflies, and the birds – the farmer wouldn’t get very far without help from them. So what do they represent in open-access publishing?

SMIT: Indeed. As you indicate, bees and butterflies and birds, together with flowers, they form an ecosystem. That’s also what this picture tries to do. And there’s a lot of cross-fertilization between all these platforms and flowers. In this field, the bees are the authors, the editors, and the peer reviewers – those most active in creating research publications. The butterflies are the next generation. And as butterflies do, they go a bit here, they go a bit there, but they also try out new platforms. For example, the next generation very much likes to use the social media, the discovery platforms. They go a bit further than maybe the bees used to do.

The birds have an even wider reach, because they’re the new audience, curious to learn about what science brings them. And this new audience – they can be doctors or patients wanting to get all COVID information. They can be practitioners, engineers, policymakers, citizens, concerned parents, the whole lot.

KENNEALLY: In this extended metaphor of the scholarly publishing ecosystem, who are the farmers?

SMIT: Yeah. Well, the farmer is there. I can see that you looked at the picture with all detail, because you can see him on the tractor a bit further out in the field, very busy. In this metaphor, the farmer is the funder of research, fertilizing the soil, facilitating this fruitful and productive field, harvesting when the fields have ripened.



KENNEALLY: And why the scarecrows? What threats are they hoping to drive away from open access publishing?

SMIT: I'm glad you posed that question, Chris, because not all is happy and cheerful in these open sunflower fields. A key problem within this proliferation of platforms and this abundance of open information is the need for trust. We know the problem of fake science, of fake information. We've also seen it happen during the COVID pandemic, to mention that again. And the scarecrows in this field – they warn against misinformation. What we tried to express is that a world of open access needs a new locus of trust. Information will appear in many places and in many versions. We need to secure the version of record that was peer reviewed, for example. Therefore, look at the beehives in the front line. That is where research outputs are processed along the principles of trust, quality, peer review, where the authors can go for recognition and reward, diversity, inclusion. And as may be no surprise, this is exactly what publishers can offer and support in this ecosystem – advancing trusted research.

KENNEALLY: Indeed, it is a very cheery scene, but the choice of sunflowers does hint at a much darker storyline beyond the frame. Why did the STM Association choose sunflowers?

SMIT: Well, in all honesty, when we chose the metaphor of the sunflower – that was in December – it was for the beauty, the size, and the scale of those flowers, and especially also the sunflower fields, and because each of these flowers has a beautiful platform in its heart.

Then I should mention that when the war in Ukraine started, we suddenly realized we were creating a picture that resembles the Ukrainian flag. And not coincidentally, Ukraine is actually one of the world's largest exporters of sunflower oil. The country is full of sunflower fields. So it was a bit the play of fate. It was a bit coincidental. But now that it is here, let me express our wish that that country will be open and free as soon as possible again.

KENNEALLY: Thank you for that – a very moving tribute, and as well, an interesting examination of the current open access publishing scene. Eefke Smit, STM's director of standards and technology, thank you for joining me today.

SMIT: Thank you, Chris.



KENNEALLY: On Tuesday, April 26, the STM Association presents a free webinar launching STM Trends with Eefke Smit, followed by a panel discussion including Caroline Sutton, STM's new executive director.

That's all for now.

Our producer is Jeremy Brieske of Burst Marketing.

I'm Christopher Kenneally for Velocity of Content from CCC.

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