

# The Readability Consortium Year 3 Annual Overview - 2025/01/08 10:42 EST - Transcript

## Attendees

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## Transcript

**Ben D. Sawyer:** fresh as people arrive in the chat. This is our year three annual overview covering all of 2024. this was confusingly started in 2021 but in October. So we've gone with the convention of referring to full years and calling Our agenda on slide two is that we're going to talk mostly about our research. We've had a pretty exciting year in research. Then we'll talk about our resources what we've built, the outputs that we share and about the community that is joining us in the room right now.

**Ben D. Sawyer:** At the end, I'll talk for just a few minutes about how we're going to build our partnership into a community of professionals and how we've arrived at the point where we can do something like that. I think rather than in last year's where I start by talking about some vision, I want to jump right into what I think is really cool about this year and in fact specifically what our entire research team thinks is really cool about this year. we all sat together and thought about if we just had three things to tell everyone. and that might be as much attention as we get, what would those be? And so without a whole lot of drum roll, I want to wish everyone happy new year. It's clearly the distant future.

**Ben D. Sawyer:** secondly, thank you all for being here and hand this right over to Steve who's going to tell you about what we think one of our most interesting projects from the previous year is. Steve.

**Steve Clapp:** And this is a collaboration between my colleague Katarina Azerella who's on the line with us and me where we wanted to look at kind of a deep question about exactly where are people reading online or in what language are they relying around the world. So we looked at a number of sources to pull together this bar chart you see on slide three. it probably is not a whole lot of surprises here but we wanted to look at is which languages are underserved from the viewpoint of our readability research including non-Latin character sets as well as where are a lot of the websites that are

**Steve Clapp:** extent, but we haven't done a lot of research in. So, I'll give you a second to absorb what's on this chart and open it up for questions.

**Ben D. Sawyer:** Boy, we thought this would be a Google search.

**Ben D. Sawyer:** And if not, we thought chat GPT would know.

**Denis Pelli:** I don't understand...

**Denis Pelli:** how to see the slides.

**Ben D. Sawyer:** You look in the chat, and the link is being kept fresh as new people come in and it should just open automatically on Google Slides.

**Denis Pelli:** Thank you.

**Ben D. Sawyer:** I should say that we don't think this is a great answer. Dennis, let us know if you're still lost on finding them. We'll ...

**Denis Pelli:** It opened up fine. I just didn't know what to do. Thank you.

**Ben D. Sawyer:** So, boy, we looked for this answer. I think this is a good 70 to 80% pulled from many different force sources and what people are reading in online turns out to be a very challenging question. I should say our members have internally strong answers to this question relative to their own populations that they serve. But of course, every one of our members serves the people they serve and is looking at the opportunities in the people they don't. And I think that's true for us as researchers as well. So, we're going to spend a little more time on this as we think about what our steps are in serving scripts that are not Latin scripts. Please

**Denis Pelli:** Can I ask another this time scientific question?

**Denis Pelli:** Steve, did you guys assess what fonts people are using?

**Steve Clapp:** you broke up just a little bit Dennis was the question...

**Steve Clapp:** what font they were using.

**Denis Pelli:** Yes. Thank you.

**Steve Clapp:** We did not. It was just a very high level how many websites are out there in various languages. we looked at literacy rates by language and came up with these directionally correct numbers but we haven't deep dived into what makes up these various pages. I think that's a great research question.

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**Stephanie Day:** So this previous year was a big year for us in the education research track with the support of a \$1 million appropriation from the state of Florida. we were able to reach much larger population of students this year than in previous years. We successfully developed partnerships with six public school districts in Florida and ly with our associate member USC a charter high school in California as well. we had about 300 students that were tested. So our largest population to date. We were able to work with students in elementary school, middle, and high school.

**Stephanie Day:** which was a am ambitious but we were really thrilled to be able to work with students across these different populations this year we were also able to complete our first study in schools which has been a challenge postcoid we were able to get into schools and actually work with elementary students directly piloting capturing oral reading with elementary students this year. So, we're really proud of the work that we were able to accomplish this year with the appropriation that we had and we're excited to share more about that research later as we go to slide five.

**Stephanie Day:** So, as we have continued, our research and continue to refine our methods, we're also considering how we can leverage and enhance current technology to provide readers of all ages with a more personalized reading experience, considering both format and also content using generative AI. and so additionally some of the work that we've done this year looks at models how we can improve the content that's generated from them and relevel content while maintaining the important information key vocabulary or details. we say difficulty level but we also mean the grade level difficulty of a text.

**Stephanie Day:** How can we leverage LLMs to provide content at different reading levels but maintaining those important information and building tools that Ben's going to talk about in a second here that can consider both this aspect of releveling the content...

**Stephanie Day:** but also the format. That's

**Ben D. Sawyer:** I will say that we have working tools and...

**Ben D. Sawyer:** so if there are individuals here who would like to come talk with us over them while they're not ready for broader release we'd be really happy to show you what we're doing and talk to you about it and there will be publications soon but the academic publication process process is slow. So, we're just trying to get them out the door before the models we use seem antiquated. I think one of the really interesting things here is that individual understanding, which you'll see bolded here, is really where we were pointed in our year two. And the universe gave us a natural next step which is this technology that allows us to apply this individual understanding that we have been learning to build in a way that can shape content to a user's needs. There are some caveats though. A lot of people are thinking about building these sorts of things and we're talking to many of the people at the forefront of that.

**Ben D. Sawyer:** But a lot of the information out there is not particularly useful. one of the reasons that we're all here is because typography exists at this intersection of art and intuition and less evidence than most of the scientists here are comfortable with. And many of the studies that are out there, empirical studies, aren't great for a lot of reasons. I mean, it's not necessarily something that I think of as a bad thing. A lot of people showed up and thought this was a cool area to study, but after one study, they discovered how hard it is to study this. It's not just about putting letters in Microsoft Word and having people look at them. That's a common moment that I think a lot of researchers over the years have had. And one of the cool things that this community does and that I think is starting to fall away is that barrier to entry.

00:10:00

**Ben D. Sawyer:** I'm hopeful that we'll capture more and more of those bright interested people and keep them here looking at this problem that we all think is so interesting. Flexibility AI is what we're calling the fusion of a project in releveling content on the fly while preserving those things that educators specifically care about, but any professional would care about. and format JPT, which is a recommendation system that lets you talk about your content and what audiences you'd like to bring it to. And it makes real time changes to your content to show you what types of changes might help. And then also sites research and shows you where it's pulling that from. if you come back with me to slide six, we're really thinking about not just technical capabilities, but who on earth this is for.

**Ben D. Sawyer:** And there are many people that we've talked to that aren't represented here. but there's a lot of stories about what we're doing and I think they align in a really cool way. Researchers really think

that grounding choices and empirical research can help people. I think that's a lot of why the researchers here are here. engineers really understand that vetted typographic research can allow systems like large language models to get it right contextually and give users what they need.

**Ben D. Sawyer:** I think typographers are very open to this type of help because there are tradeoffs in designs and tools that allow typographers to build beautiful things that are also effective are something that they're not just open to For applied situations like education, there are really tough questions to that this can solve. There are places where there's not people to eliminate, but there are needs that are not being funded or are not being addressed that these types of technologies can help with. And finally, there's a strong business case. And I love that because it means there will be an engine to build what we're building. And so, I'm really excited about this work and about where it's coming to.

**Ben D. Sawyer:** when all the way back in 2021, we talked about this AI that we were going to knit our empirical research into that we'd need a big group building empirical research to fuel the type of AI that could help people. But I was always uncomfortable with AI because I was like, we don't really know that the technology will arrive where we need it to be. And in fact, the technology it's kept paced rather delightfully in this moment. We'll see where that goes. questions about this work that we're so excited about the flexibility AI project.

**Bruno Maag:** AI, and maybe I'm just a lite just being old. with AI, the thing is, if you put s\*\*\* will come out. And unless you can teach the AI properly in a very diverse manner, with information from technologist, topographers, MBAs, etc. AI will not give you the results. AI will lead you down the garden path.

**Ben D. Sawyer:** Although I don't think that's a problem we currently face,...

**Bruno Maag:** Yeah.

**Ben D. Sawyer:** but I think we do face it with large language models. And I think it's the reason that every researcher here should be talking to industry because industry gets One of the biggest problems in building large language models right now is garbage out problem. And the companies that are succeeding in solving it are having amazing success and those that are struggling are well seeing that reflected in all sorts of ways. So I think there's a lot of incentive right now for industry and likely government but they will follow more slowly to look at the work we're doing and to fund the type of research that will give these systems a firm foundation.

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**Bruno Maag:** because...

**Ben D. Sawyer:** I disagree.

**Ben D. Sawyer:** I think you will be increasingly confident. You have to start somewhere and...

**Bruno Maag:** but yeah no no I get that I get that ...

**Ben D. Sawyer:** truth and...

**Bruno Maag:** because you see me time and you see time and again that people trust the computer computer says yes so whatever comes out of some whatever bot people will take as the gospel

**Ben D. Sawyer:** I think that's part of the burden we have here is that I mean that's also true for the scientific community. What we publish carries a lot of weight. It's one of the reasons I think the work that's being done on metrics and on new tools for evaluation is possibly more important than the work being done on these models.

**Ben D. Sawyer:** in fact more important. Let's be clear. it might not get more attention. It's clearly more important. If you look at slide seven, you'll see how we imagine this research right now from our perspective. I want to be clear that the research associates that we work so closely with and those of you that we have, fallen out of touch with in this turbulent year, you're on my list. I want to come talk to you. are not as much here. This is what the members vote in and how we think about that. Right now, we're really interested still and think our foundation is information design for the individual. What clusters exist in the population and what do those people need is how we're thinking about individuation right now. That each individual is a themselves of clusters that tell us how we can help them.

**Ben D. Sawyer:** The psychophysics of variable typography give us tools for that. They answer questions like how can typeface enhance reading for a group and also questions how can we keep brand intact. And I think that's important because there are many things that are utilitarian for things other than performance. I don't want to optimize the world for reading speed or for comprehension or just for enjoyment or just for engagement. We have to think about what each population needs. And for those producing things, if they want their written word to carry some of their brand, like the New York Times, we would like to be able to tell them, yes, that's something you can do because otherwise these wonderful things we're building won't get Using them means these applied contexts. These are the areas that we have been playing with in the past year.

**Ben D. Sawyer:** education is one of our biggest wins. We're also working on a coffee table book with a couple of explorers who went across the South Pole doing our research. we'll let you guys know when that comes to We're getting into medical settings. thanks to Monotype, we're doing our first study in transportation and in how to deliver the written word to the driver. and we're talking extensively about extended reality. no pun intended. it is we think the wild west for this type of work and it has a lot of opportunity to help people. But we're also thinking strongly across language and culture. The big opportunities are in the next billion people who are going to join the digital ecosystem that we're facing.

**Ben D. Sawyer:** And I'm really interested in those billion people and how we can take things we've learned from the Latin alphabet and apply them to those scripts. We'll talk more about that soon. Right now, I'd like you to hear from some of the scientists driving these areas of work. Nelson.

**Nilsu Atilgan:** Yeah. I will start by introducing one of our first research tracks which is information design for the individual. As the name suggests, this track focuses on tailoring design for individual needs. However, one of the key takeaways we got from our studies under this track this year is that group identification can be a more effective strategy for parameter setting or font and cing By identifying clusters or groups with similar needs, we can make more reliable and actionable recommendation.

**Nilsu Atilgan:** While individuation still is a goal, our re research shows that the starting with group based insights offer a more robust approach, individuals who identify with a certain group can benefit from those set of design adjustments. For example, one of the clearest cases is grouping by age. As we know, reading performance declines tends to decline with age. And our findings reveal that adjusting specific typebased parameters actually can help compensate for these age related changes in readability. And I'll hand it back to you Ben for the next takeaway.

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**Ben D. Sawyer:** Absolutely. So, I think that that piece of information is actually really key to where we're thinking of going next. the large language models that I described to you, we think can leverage this type of research to help all sorts of stakeholders. And I think that for the scientists here, you probably need to be thinking about your data in that way. and we'd like to help you. If your data is to publish papers to send to journals only, you're probably behind the curve of where it could be put to help people because it will be scraped out of those journals and abstracted to build systems.

**Ben D. Sawyer:** What we think is maybe more interesting for this community is to start talking with scientists about how to package your data so that it can more effectively influence, for example, the large language models that exist out there. And I realize that's a contentious thing to I said it to a journal that I'm on the editorial board of it and they have not yet kicked me out, but they might. But I do think it's an important thing especially for this group where the people we can help sit on the other side of large systems that we can influence. That makes this a very important message here. And if that is something that you find interesting or find scary or think is a bad idea, I would love to talk to you because I think how we do it and how we talk about it is incredibly important.

**Steve Clapp:** Some of the cool things that we're going to work on in this upcoming year. at the bottom of slide eight. we're currently in flight is what we're calling a long form medical readability study. we've done medical readability studies before but never in the long format style. where it's a whole article's worth of reading that we're asking our participants to do in a couple of different applicable fonts or type faces. So, we'll be reporting on that probably in the first quarter of this year. we're kicking off very soon a study with Monotype a glanceable reading while driving study which is actually a refresh of a study that we did about 10 years ago with Monotype.

**Steve Clapp:** but we're going to update it to include larger monitor sizes. As if you've, driven in any kind of late model vehicle, you've noticed that the screens are getting larger and larger, which on the face of it seems nice and there's a cool wow factor there, but kind of what are the trade-offs, between being able to quickly pick up something on the screen with all the clutter that's on the screen. the more time you're looking away from the road the worse off your potential outcomes are. We're going to start looking at things like different ways of measuring readability with things like pleasure or engagement psychological flow. look at various kinds of content. what does that do for readability? serious content versus non-serious content for example.

**Steve Clapp:** And then we want to look at different groups of populations like those with self-reported dyslexia to also try to enhance readability for that group. So, lots of neat things at...

**Steve Clapp:** what we're probably going to be calling the group level now coming up in this year

**Nilsu Atilgan:** Yeah and...

**Nilsu Atilgan:** I'll add on the thing that Steve just said especially for the factors like pleasure like he mentioned we will go beyond and above from the most studied factors and for that studies actually we are collaborating with Dennis Py who is in the audience and his graduate students Mario Pombo from NYU and we are examining

**Nilsu Atilgan:** the impact of the pleasure that is derived from passages and how it interacts with our reading behavior. And as Steve said for the self-reported dyslexia group and the study, we've been actually

working quite a bit for that setting up our designs and studies and then now we are ready to set up for this large scale data that is an important initiative that includes people with dyslexia, self-reported some not with dyslexia but in the spectrum. So with this large scale data set we will be able to get there. So that concludes our track information design for individual.

**Nilsu Atilgan:** Before I move on to the next one, any questions or...

**Nilsu Atilgan:** comments on this Yep.

**Bruno Maag:** Yeah, just a quick question,...

**Bruno Maag:** ll. So, the study that you're doing with Dennis, on the pleasure, is that in regards to the pleasure of the content or the pleasure of how it looks or both together? Because I can make the most pleasurable content unpleasant to read.

00:25:00

**Nilsu Atilgan:** A good point. It's what I'm referring to is the pleasure of content.

**Nilsu Atilgan:** Nothing to do with the format. Yep. Sure.

**Bruno Maag:** Right. Right.

**Bruno Maag:** But to a degree, that's going to be a little bit distorted unless you include the looks of it as what's your emotional reaction to the look of it?

**Denis Pelli:** Can I add Nelson?

**Denis Pelli:** So I'm not up on...

**Nilsu Atilgan:** I'll head

**Denis Pelli:** what you two had agreed most recently to measure, but Maria for her Ph.

**Denis Pelli:** HD has been measuring both. they look at a Lauram ipsum text and they're asked to say how beautiful it is and we screen out people who can read Latin. And then another is after doing a timed reading they asked how comfortable that was to read. And measures are quite independent as you were hinting

**Bruno Maag:** Okay, thank you.

**Nilsu Atilgan:** that. Yeah. Thank you. any other comments or questions on that? Then moving on to slide nine for our next research track which is the psychophysics of variable type. for those unfamiliar with the term psychophysics very briefly it is the study of how physical stimuli interact with sensory systems essentially how external physical stimuli relate to the sensations and perceptions they produce so we've uncovered a lot of findings under this track but I will only highlight a couple of those just for the sake of time firstly this year we successfully implemented an online visual span test that takes less than a five

**Nilsu Atilgan:** minutes. the visual span the term basically refers to the number of letters a person can see at a glance without moving their eyes. So if you see on the left there in a little figure that while reading for example the sentence she saw the dog we are able to process only a few letters at a time at one glance.

So the capacity of that is we refer to as visual span and importantly there are individual differences in visual span which comes inherently and our research should reveal that these differences may partly explain the variations in reading performance. If you look at the table on the bottom you'll see the proportional changes in visual span size between younger and older populations directly reflects on their reading speeds.

**Nilsu Atilgan:** This is a preliminary data I should add but this finding is remarkable especially considering that this is coming from a very quick online test and the potential applications and the future research questions this test opens are vast. So we are very excited on exploring another key finding now I'll switch gears to the study of font and type face. We explored extreme ends of variable type specifically roboto serif and roboto flex and we found that the readability is maintained even at extremes ends of the weight and width parameters. These extremes and are the ones that provided by Google.

**Nilsu Atilgan:** So this is kind of showing that these fonts type faces this can be used by at extreme ends and still not impact readability. So this can provide guidance for type face designers as well. And finally I will talk about the axis interaction. So we studies the interactions between the type axis and the effects of and print sizes. For instance, the excite of a font has little impact on its own and perform on reading performance at larger print sizes. However, when it comes to the smaller print sizes which becomes a little bit harder to read then a larger excite significantly improves the reading performance. So while we are talking about the impact of access it's also important to talk about in what settings and if it is easier to read in what kind of conditions we are looking at it under.

**Nilsu Atilgan:** So looking ahead in the next year, we plan to investigate how visual spend size varies across different phones maybe leveraging these doors that this test has opened and we are open to many more questions that we can explore with this test and we've also set up an inlab eye tracking system that we will start collecting gaze data now in our lab at UCF and in various studies and asking various research questions. And lastly I will talk about that we will explore the different reading environments. This is also in collaboration with Google and how the devices for example we read on phone versus laptop influes preferences or reading behaviors by using the same material.

00:30:00

**Nilsu Atilgan:** So lots of questions to answer and we have a few more research studies lined up that we are interested in but again for the sake of time I will not go into all of those. So this wraps up this research track before I hand it off to Stephanie for the next track. Any questions or comments here? Okay then Stephanie

**Stephanie Day:** following so as I mentioned earlier we had the opportunity to do a series of readability studies with school students in elementary, middle and high school today or high school this year. And I just want to highlight one interesting finding that we've seen in our data that is emerging across all of these populations in regards to and so we had students read multiple passages in various letter spacings. and one common thing we're finding is that narrow letter spacing is yielding faster reading speeds across all of the grade levels. This was true in the silent reading data as well as the oral reading data with the elementary students.

**Stephanie Day:** we also for elementary students finding that narrow letter spacing seems to support higher reading comprehension and for our middle and high school students wider letter spacing was actually associated with lower reading comprehension. So, I think this was really interesting data with

this, common theme that we're seeing in regards to letter spacing that we hope to continue to look into further in next year and even larger samples.

**Stephanie Day:** in regards to the LM LLM work that we talked about earlier, another study we finished in we'll have this study available soon that we can share out for those that are interested is looking at how various LLMs and prompting methods perform at this task of reading content. So, we talked about, can we read content while maintaining important vocabulary or just overall more general details in addition to how accurate are LLMs and various prompting methods at reaching the targeted grade level that you might ask it to be level to.

**Stephanie Day:** and what we're finding is, the accuracy of leveling and the consistency of key details and vocabulary really varies by prompting methods in LLM, but we're seeing that, overall this is a very promising future for this work. So, in this next year, we learned a lot this year from these various studies that we did. we're hoping to seek additional funding this year to support being able to do this research at a larger scale. We're also finding that on-site data collection is yielding not surprisingly more accurate, better quality data.

**Stephanie Day:** So obviously that will cost more in resources in terms of people and things and so we're hoping to be able to obtain additional support to grow that work here in year year four and additionally the work so that we continue the development and testing of flexibility. We're hoping to develop a tool to introduce to teachers to have them test with the content that they have and that they're working with currently. Yes. are there any questions, Dennis? I think you're muted with remote.

**Denis Pelli:** You were saying that you're getting better data on site than I presume online. Can you describe what's the difference?

**Stephanie Day:** So, with our remote data collection with our middle and high school students, for example, we collected the data remotely.

**Stephanie Day:** So we gave the teachers the information. We had students go to our platform. They completed the test online without having any kind of proctoring. and the problem with doing that especially with students is they like to just click to get done. They just want the gift card. So it's a much more uncontrolled environment. it's harder to really assess is this real data, right? When you start to see some really, high reading speeds that don't seem realistic and,...

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**Denis Pelli:** Thank you.

**Stephanie Day:** conflict with what research tells us. and so we wanted to also test going into schools. and with our elementary students, we went into schools and we had them read out loud.

**Stephanie Day:** And so obviously that gives us a lot more confidence in the data that we're collecting. And sure

**Ben D. Sawyer:** It's really hard to collect data in classrooms.

**Ben D. Sawyer:** I mean I actually have a partner that we may end up working with who commented that most people that they knew were getting out of the classroom during COVID never to return and he could not

believe that we had decided to enter at that point. He wasn't aware of anyone else who did that. I think that's true. It's a really complicated place to do research and we also think that the data is valuable enough that it's worth it. It's one of the reasons why one of our big pushes in the coming year is to look for additional partners because in order to step this up to the next level, we know that there are ways we can help, but in order to step this up to the next level, we're going to need partners that let us reach more students. And that is very clear to us.

**Ben D. Sawyer:** For example, one thing that you won't see in this data is enough data that we can really do clustering effectively. Even though there are populations in those classrooms,...

**Ben D. Sawyer:** we should really be helping. I think the last piece here, Dennis, are you putting up your hand scratching your head?

**Denis Pelli:** Yeah, I just wanted to just a parallel comment that testing classroom I'm collaborating with Maria Louisa Martelli at University of Rome and...

**Denis Pelli:** Sarah W at University of Huddersfield in UK and...

**Denis Pelli:** we are in classrooms testing reading in Italian and English. It is hard.

**Ben D. Sawyer:** I would love to talk to you about that.

**Ben D. Sawyer:** And it's also a perfect segue. You're not a plant, but slide 11 is about the fact that collecting international data is really hard. So, we were in classrooms in India this year. That data did not turn into anything that I think we will be publishing, but it turned into a lot of lessons and we also think it's incredibly important as well. We think that this type of data collection reflects back to the domestic collection we're doing by teaching us things.

**Ben D. Sawyer:** We're also the more we learn about readability across language and culture, the more we think that it's where the real opportunity here is in a large scale sense to help people. Look, frequencies of languages read are not even remotely equivalent to those of languages spoken. And it is an incredible fascinating mess what's going on there. I'm attached to a couple of international communities just through family. I'm married into a Mandarin speaking family. And as I learn I had always assumed that international community especially there's a lot of people who read in Mandarin but don't really speak it internationally. There's all sorts of different groups. I'd always assumed that it's not exceptional. Every international community with a non-Latin script has similar situations all over the world.

**Ben D. Sawyer:** And I think getting a handle on that is very important for us as scientists and also for our members and the people who will fund this work. Also, it's become really clear to me and this will be startlingly clear to many of the typographers here, so I'm speaking more to the scientists that non-Latin scripts inherit many of the constraints of a technology stack built for Latin scripts. And that's a fascinating and tractable moment because this many people coming online is going to force building some new technology and force rebuilding how fonts on digital devices work in some ways. And as a scientific community, we can influence that in ways that will help people because the way that the Roman alphabet is built is not helping somebody who reads Arabic or Korean or any number of other non-Latin scripts.

**Ben D. Sawyer:** Finally, I think it's possible across writing systems after working with Hillary Palum at Google about to evoke similar feelings with design when that design is careful and intentional. And that's

a really cool idea. It means that the things we're trying to do with typography can actually target different groups of people with different scripts in similar ways, which I love as an idea because in the end, we're just targeting humans regardless of what they look at on a page to pick up the thoughts of others. And that I think is a really powerful piece. And I'm excited to share the piece that Hillary and Nils are put together with everyone when it's ready.

00:40:00

**Ben D. Sawyer:** I think it's a really interesting direction.

**Bruno Maag:** Yeah, Ben, if I may just follow up on that certainly what you said about creating comprehensive typographic design systems across writing systems is absolutely possible and I have done that with my team at daughter Mark on several branding projects and I'm not talking about just cerillic and Greek as non latin latins we're talking about complex issues most notably Nokia...

**Bruno Maag:**

**Ben D. Sawyer:** Okay.

**Bruno Maag:** which goes over 19 different writing systems but I think What's really worth actually bearing in mind is that we shouldn't speak so much about non-Latin type face or non-latin right fonts but complex writing systems when you go into Bengali for example the complexity is just blowing it makes Chinese a child's play you f\*\*\*.

**Ben D. Sawyer:** One of the cool things though is to a psychophysicist these things are abstracted in useful ways that help with that complexity. I think what's interesting here is the barrier to culturally aware localized typographic assets is the necessity of hiring a deep expert and a really specific type of actor you and...

**Ben D. Sawyer:** your company, I mean, that's an incredible barrier to a billion users that have so many different nuance systems.

**Bruno Maag:** Yeah.

**Bruno Maag:** But all this sort of stuff and again it comes back to a lot of the research you're planning to doing in the complex world is that the commercial printing press had not entered those parts of the world until about 120 years ago. So hypography does not exist outside Europe and North America. yeah. Yeah.

**Ben D. Sawyer:** If we could meet typography earlier and help it and solve some things that would help people before it became the discipline that it is now.

**Bruno Maag:** But that means you're talking about calligraphic culture that means that typography the complexity in writing systems such as for example Bengali which is linguistically complex which then translate into the visual complexity is based on handwriting and...

**Bruno Maag:** with handwriting you can pretty much do whatever you want whenever you want but it's really hard to then translate that into a computable system you Okay.

**Ben D. Sawyer:** We're going to be talking about this a ton during the monthly readabilities and...

**Ben D. Sawyer:** we would really like those who find this fascinating to come join. We'll signpost on those that this is what we're talking about.

**Ben D. Sawyer:** But I think there's something here and something big and I really want to get together the people who have pieces of the puzzle because I not only don't know how to solve this problem. I don't have the full question yet. It's an unknown and that's why I find it so exciting and I think...

**Ben D. Sawyer:** why it sparks such discussion. interestingly also we don't have the right people in the room to answer it. We need the people who live in this world and that's a big goal for this coming year. We need everyone there.

**Bruno Maag:** Yes and...

**Bruno Maag:** yes and Yes and no. Again, it comes back to the fact that that world has not quite caught up yet, And I don't mean that patronizingly at all,...

**Ben D. Sawyer:** No, in fact it's an opportunity.

**Bruno Maag:** .

**Ben D. Sawyer:** It's an opportunity to find a people at the forefront and invite them to come work with us. in the interest of time, you look at slide 12. This is how we think about our research, but it is not the way that everyone here thinks about this research.

**Ben D. Sawyer:** That's another conversation we're going to try to build this year. What this system we're building looks like, I think, is a really important question on top of this one. How do we shape this as a discipline? Something that a new person showing up to can have the framework to hang their own interesting questions and ideas within. One way we can do that is by giving people the tools so when they show up, it's not overwhelming. Learning that to start doing research here, you have to understand enough about typography not to do things that hurt your research is a moment that makes a lot of people walk away. And Amy's going to talk to you briefly about some of the things that we're trying to make available to help people...

00:45:00

**Ben D. Sawyer:** who show up stay and do good work.

**The Readability Consortium Team:** Yeah, thank you.

**The Readability Consortium Team:** So on slide 13, I will be fairly quick here. we've got a lot of resources that we've been developing and that we've been sharing and we've also still got more in the pipeline. so brief overview basically a lot of these are public pages and then we've also got our private portal for community and members. we have all of our publications. We have work on children and psychophysics and LLMs and everything. We've got a lot of our public press news articles that kind of start to bring things down for more common folk language easier to help share. All of those resources are pulled together. on our own resource page, we have public open passages and stimuli.

**The Readability Consortium Team:** We're working on having more of our GitHub actual code snippets and pieces in there as well so that those are all sharable. we've got our portal itself that's a login only. you can

sign up for the portal. There's a link on the slide itself. we've got We've got community notes. There's a literature scan done by Katarina of all of the stuff about readability that's not just our work. so there's lots of resources there available. Please go use them. Please talk to me if you have questions about them. are looking for something and don't see it. I would love to know. So that's our quick and dirty of our open resources especially for our website. So I'm going to move down to slide 14.

**The Readability Consortium Team:** we've got a little bit about again popular press about how we're sharing things out. So, I wanted to talk really briefly about a success story from this past year of a large collaborative effort that we had to announce the Monotype joining of the consortium. So, also thank you to Monotype for all of that work. but we really want to put some more effort into doing this again in this coming year, but with all of our members. we'll be reaching out to try and find ways for us to all share a more collaborative or more group level type messaging.

**The Readability Consortium Team:** But also if you have stories and things that you want to be sharing, come talk to us and we'll find some ways to work all together and...

**The Readability Consortium Team:** help amplify all of us.

**Ben D. Sawyer:** If you're good at this,...

**Ben D. Sawyer:** come talk to us. We are scientists. We realized at one point that none of us had an active social media account. where we started as a group. We're getting better and better at the idea of the type of outreach that we need to have. But we'd love to talk to those of you who are in the scientific community and are good at outreach. And to those of you who are members who would like to work with us to build a splash like this, we're very much learning, but also I think there's some advantages to that because we're figuring out how to make splashes in ways that reach out to communities that these types of events don't always reach.

**The Readability Consortium Team:** Being said, we're going to look down at slide 15. And 15 is kind of a play by numbers of how things have gone this last year. we've had 13 studies collected across our child and adult work. That's across all of our varied tracks. So, lots of variety there. we've had nine presentations and nine publications from TRC associates in the larger group. which of the presentations and four of the publications were our internal TRC team. and two very successful workshops VSSS and APS. lot going on.

**Ben D. Sawyer:** I think a big congratulations also to Rashid and doctors Rashid and Thomas who both did their dissertations in areas directly related to readability and that work that they will be presenting both at the monthlies and in some ways to the members at the member meetings. the other really exciting thing is we have three other PhD students who are doing aspects of their work in readability and this is something I want to only grow.

**Ben D. Sawyer:** I think a portion of the funding that passes through our community should be training future scientists and that really I think gets to the core of the fact that this community is at the point where we could be training future scientists at a higher rate and picking up people who there's a lot of excitement at VSSS which we'll talk about in a second about this and other scientific meetings and that's an extraordinary thing but first I want to acknowledge on slide 16 our UCF research team who makes all possible. One of the things that really makes this work at the core is the good people that have come to work with us here and it is a real privilege to work with these folks. I have always wanted to work with a team of scientists each of whom are a deep expert in their area and I've gotten that wish through this.

00:50:00

**Ben D. Sawyer:** I think the other exciting thing are people like Sam who came to us as a typographer and I do believe he might pass his comps at this point having done so much research with us. That's an exciting moment as well. these sort of intellectual hybrids that come out of the work we do. Slide 17 I think is even more exciting. if at the beginning of last year our goal was to reach out and find people in the community that we thought were doing exemplary work and work with them and we have such an amazing cast of people that we've been able to work with over the last year. I also want to say that and we have not worked with them as much as we wanted to and that's on me. A year ago I wasn't here because of a medical situation and I've been more and more available over the course of the year.

**Ben D. Sawyer:** that means that some of the folks here that I really wanted to get in and talk and do cool work with that didn't happen as much as I wanted it to. And so if you're on this list, I would like to meet with you at the beginning of this year and talk because this last year I've been less available than I wanted to be. I think the other really exciting thing though is that almost everybody here has in one way or another impacted the cool work that's coming out and some of these people are doing work that would deserve another 40-minute presentation which means that next year one of my goals is that we're not just featuring our core research team in this but we're featuring the research associates more because there's amazing work coming out of these labs.

**Ben D. Sawyer:** Would you talk briefly about our community in aggregate, Amy, since you're the face to everybody who comes to our monthly readability meetings?

**The Readability Consortium Team:** So our community has grown again. each year we've keep adding more folks as more people hear about us and get tied in through the various workshops and also the various communities that you all are involved in. so pictured on slide 18, we've got the VSSs community building workshop which was a great success with the community. We've done a lot of work with bringing more folks in to talk and trying to do more discussion based and we're hoping to continue along the same route there.

**The Readability Consortium Team:** but also to start building in more niche communities, the scientific community, but also the typography community.

**Nilsu Atilgan:** Yeah, I just wanted to add on to that as I feel like I'm coming from the science community. I want to say something here. it was a great success at last year at vision science society meeting. we had the workshop and was a standing room only. There was incredible discussions and interest in many ways and we are now planning to do an annual recurring workshop at VSSS. But in addition to that Amy was talking about we want to reach out to the human factors community and the type community we want to have these kind of workshops and discussions in different communities as well similar to vision science community and in the audience have many people now contributed and helped us to build that community. Okay.

**Nilsu Atilgan:** I'll hand off to Ben to talk about an import or Stephanie one of the most important people in our community.

**Ben D. Sawyer:** Absolutely. Coming down to slide 19.

**Ben D. Sawyer:** I believe we toyed with the idea think retirement for this slide. this is a member of our community who was here right at the beginning and is I believe going to continue showing up. I hope

that's but Rick is retiring and going on to his next great adventure. and I think this is really exciting to reflect on all of the things that have happened while Rick has been here helping us and helping Adobe to be engaged and helping us to build what's happening here today. certainly this would not all be here without his ideas, without his excellent words smithing and without him being such a tireless advocate for readability in general.

00:55:00

**Stephanie Day:** education work that we've done this year and building partnerships and seeking, our funding. and he's really made such a huge impact in this space and in this group and we're really thankful to have been able to work with him.

**The Readability Consortium Team:** just very briefly, thank you. You've been a delight. and a lot of the work that we do has been supported by Rick and everything that he's put into it. So,

**Rick Treitman:** Thank you all. I just want to point out that your gain. Adobe's not going away. Tim Brown will be taking my place as a representative from Adobe and he's far more qualified to be doing this than I ever was. Tim lives and breathes fonts, lives and breathes readability. and I think that he's going to be a great representative for you. and it will keep Adobe in the game as well. So, I'm really excited about bringing new blood in and having Tim continue the work.

**Ben D. Sawyer:** internal talks at Apple, at Amazon, we talked to Pearson, we talked to Wikipdia, we gave talks at prestigious academic institutions, we talked to a lot of small companies and we generally had a lot of people show up to say this is interesting. How can we be involved? Which I think is really cool. It also means that our community is going to evolve yet again. this thing that started as, Rick and Ben Wolf and me talking about what on earth we would call a weird thing like this, readability was not our first choice. I'm so happy we went with readability. to a moment where I think we're going to be building a bigger community. It's time. we spent some years thinking, Do we have the evidence?

**Ben D. Sawyer:** Yes, it is real. We do have the evidence. We spend some time thinking, is this discreet from other things that are out there? Yes, it is. And people are showing up here wonderfully because they found it independently in many cases. Many people are in this room because you found this blank spot as well and then looked around for someone else who was there. That's really cool. This is an empty spot in the universe and we can fill it with something really cool. And there are other people in this spot. So one of the things I want to ask everyone here is think about who should be here with us. Who should we be talking to? And I mean on every part of this, who are the scientists we should be talking to? Scientists, typograph Who are the typographers we should be talking to? Those of us who are in are member positions or funding some of this research. Who else could join in that? The larger we make this space and the more quickly and we look around it, the more people we can help.

**Ben D. Sawyer:** And that in the end I think is the opportunity here. We can do something that would help a lot of people forever and kind of change the way the written word works for the rest of history, which is good because I think we're going to be using it. Look, with that, thank you all so much for your time and attention, not just in this meeting, but over the last almost 5 years, if you go back to Rick and, Ben and I s sitting in that room. I look forward to a lot more conversation to come. Happy 2025, all.

**Ben D. Sawyer:** And I like your picture.

**Steve Clapp:** Does Google save all of these chat messages or...

**Steve Clapp:** do we

Meeting ended after 00:59:59 

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