From: Boutin, Chad T. (Fed)
To: Miller, Carl A. (Fed)

Cc: Peralta, Rene C. (Fed); Huergo, Jennifer L. (Fed)

Subject: RE: Op-Ed on Google"s Q computer

Date: Tuesday, December 10, 2019 10:45:54 AM

Perfect Carl, see you there!

CB

From: Miller, Carl A. (Fed) <carl.miller@nist.gov>
Sent: Tuesday, December 10, 2019 10:44 AM

**To:** Boutin, Chad T. (Fed) <charles.boutin@nist.gov>

**Cc:** Peralta, Rene C. (Fed) <rene.peralta@nist.gov>; Huergo, Jennifer L. (Fed)

<jennifer.huergo@nist.gov>

Subject: Re: Op-Ed on Google's Q computer

Hi Chad -

Great. The location will be room B341 in building 222. I decided that we'll actually start at 10:05am on December 13. (The room is occupied until 10am, and this avoids the guests waiting outside wondering when the meeting is actually going to start.) So, the official time slot is 10:05-10:30am.

I've attached the current draft of our schedule just so you can get a sense of what we're doing. See you on Friday!

-Carl

**From:** "Boutin, Chad T. (Fed)" < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov</a>

**Date:** Tuesday, December 10, 2019 at 9:05 AM **To:** "Miller, Carl A. (Fed)" < <u>carl.miller@nist.gov</u>>

Cc: "Peralta, Rene C. (Fed)" < rene.peralta@nist.gov >, "Huergo, Jennifer L. (Fed)"

<jennifer.huergo@nist.gov>

**Subject:** RE: Op-Ed on Google's Q computer

Sure Carl—it's on my calendar. Let me know where I can meet you.

CB

From: Miller, Carl A. (Fed) < carl.miller@nist.gov>

**Sent:** Monday, December 9, 2019 5:36 PM

**To:** Boutin, Chad T. (Fed) < charles.boutin@nist.gov > Cc: Peralta, Rene C. (Fed) < rene.peralta@nist.gov >

Subject: Re: Op-Ed on Google's Q computer

Hi Chad -

Would the time slot 10:00-10:30am on Dec. 13<sup>th</sup> (Friday) work for you?

(Rene: I shifted the first event on Friday to start at 10:00am, since it looks like your room reservation starts then.)

-Carl

**From:** "Boutin, Chad T. (Fed)" < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov</a>>

**Date:** Thursday, November 21, 2019 at 4:47 PM **To:** "Miller, Carl A. (Fed)" < carl.miller@nist.gov>

**Cc:** "Peralta, Rene C. (Fed)" < <u>rene.peralta@nist.gov</u>>

Subject: RE: Op-Ed on Google's Q computer

Terrific. I don't want to inject myself in the conversation at all—just want them to know that I'm here and want to coordinate with their Public Affairs Office to make sure the story gets told accurately, engagingly and on time.

Naturally I would welcome their perspective on NIST's work and the overall effort once you guys are finished with your own business.

CB

From: Miller, Carl A. (Fed) < carl.miller@nist.gov>
Sent: Thursday, November 21, 2019 4:44 PM

To: Boutin, Chad T. (Fed) < <a href="mailto:charles.boutin@nist.gov">cc: Peralta, Rene C. (Fed) < <a href="mailto:rene.peralta@nist.gov">rene.peralta@nist.gov</a>>
Subject: Re: Op-Ed on Google's Q computer

Hi Chad -

Great, thanks. I just wrote to Alan Ho @ Google and mentioned the logo rule (and also asked that he check with us first if he plans to say anything specific).

It would be great to get you introduced to you the group – I made a note about that also.

-Carl

**From:** "Boutin, Chad T. (Fed)" < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov</a>>

**Date:** Wednesday, November 20, 2019 at 6:26 PM **To:** "Miller, Carl A. (Fed)" < carl.miller@nist.gov> **Cc:** "Peralta, Rene C. (Fed)" < rene.peralta@nist.gov>

Subject: RE: Op-Ed on Google's Q computer

Thanks Carl. Happy to touch base with you after you meet with the Google folks about the collaboration. I can stop by one of those days and introduce myself if you think it helpful/appropriate—just an idea.

Incidentally, Robin Materese suggests that you guys refer to this as a meeting rather than a workshop. Evidently the latter term carries the implication that it's open to the public. (FWIW, this distinction was news to me as well.)

Regarding the NIST logo, Google should simply spell out NIST on the slide rather than use the logo, which has a lot of rules surrounding its use.

Hope this helps, CB

From: Miller, Carl A. (Fed) < carl.miller@nist.gov>
Sent: Wednesday, November 20, 2019 1:39 PM
To: Boutin, Chad T. (Fed) < charles.boutin@nist.gov>
Cc: Peralta, Rene C. (Fed) < rene.peralta@nist.gov>
Subject: Re: Op-Ed on Google's Q computer

Hi Chad –

Quick update on the potential Google/NIST randomness project:

We're planning to host a (private) workshop on Dec. 12-13 with folks from Google. One goal will be clarify what kind of collaboration we might have. Ideally we'll know more after that date.

Also, I wanted to get your opinion / preference on something. Alan Ho (from Google) is planning to give a talk at the "Quantum for Business" conference about Google work on randomness & quantum computing, and he was planning to show a slide that included my picture and the NIST logo. I initially told him it was ok to mention their collaboration with NIST (and I emphasized that we don't yet know the details of that collaboration). What do you think? We can tell him to limit what he says if you'd prefer.

Talk to you later!

-Carl

**From:** "Boutin, Chad T. (Fed)" < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov</a>>

Date: Tuesday, November 5, 2019 at 5:26 PM

**To:** "Miller, Carl A. (Fed)" < carl.miller@nist.gov >, "Peralta, Rene C. (Fed)"

<<u>rene.peralta@nist.gov</u>>

**Cc:** "Materese, Robin L. (Fed)" < <u>robin.materese@nist.gov</u>>, "Gerskovic, Leon (Fed)"

<leon.gerskovic@nist.gov>, "Stein, Ben (Fed)" <br/>benjamin.stein@nist.gov>

Subject: RE: Op-Ed on Google's Q computer

Carl,

Thanks so much for the update. My video team colleague Jose Garcia mentioned that you and Google might still be discussing the nature of the collaboration, so I'm happy to stay in close touch with your team. I'd still like to write something up, but before my office can decide I'll have to know what it is first!:)

I realize you must have a thousand things to think about other than keeping me posted, but consider me very interested. The sooner I know what you will be doing together the better a job I'll be able to do on the writeup. Hope it gets resolved soon and I can put together a nice announcement for you.

Best, CB

**From:** Miller, Carl A. (Fed) <<u>carl.miller@nist.gov</u>>

Sent: Tuesday, November 5, 2019 5:09 PM

To: Boutin, Chad T. (Fed) < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov">charles.boutin@nist.gov</a>>; Peralta, Rene C. (Fed) < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov</a>>

**Subject:** Re: Op-Ed on Google's Q computer

Hi Chad –

I'm still in contact with Google (we meet on Wednesdays). We're going to discuss the theory some more. I don't know if NIST & Google have yet come to an agreement about what the randomness collaboration is going to actually look like. NIST & Google had differing opinions about this. (I just wrote to Carl Williams to ask him what he came away with after meeting with them a couple weeks ago.)

So, something may be in the works, but we don't know what it is exactly. It sounded like your goal might be to write a general article about quantum randomness, and to time in with the announcement of a NIST/Google collaboration (if there is one)? If so we should stay in touch about it.

-Carl

**From:** "Boutin, Chad T. (Fed)" < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov</a>>

Date: Tuesday, November 5, 2019 at 8:55 AM

**To:** "Miller, Carl A. (Fed)" < carl.miller@nist.gov >, "Peralta, Rene C. (Fed)"

<rene.peralta@nist.gov>

Subject: RE: Op-Ed on Google's Q computer

Thanks Carl.

A question for you and Rene:

What's the status of your project with Google? Any updates? I'm still interested in doing a story, but I suspect the focus will need to change now that the company has claimed quantum supremacy all on its own.

CB

From: Miller, Carl A. (Fed) < carl.miller@nist.gov>
Sent: Thursday, October 31, 2019 10:27 AM

**To:** Boutin, Chad T. (Fed) < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov">charles.boutin@nist.gov</a>; Stein, Ben (Fed) < <a href="mailto:benjamin.stein@nist.gov">benjamin.stein@nist.gov</a>;

Materese, Robin L. (Fed) < <a href="mailto:robin.materese@nist.gov">robin.materese@nist.gov">robin.materese@nist.gov</a>; Gerskovic, Leon (Fed) < <a href="mailto:leon.gerskovic@nist.gov">leon.gerskovic@nist.gov</a>; Peralta, Rene C. (Fed) < <a href="mailto:leon.gerskovic@nist.gov">rene.peralta@nist.gov</a>>

**Subject:** Re: Op-Ed on Google's Q computer

I think it's a good article – Scott Aaronson is always a good salesman for progress in quantum!

-Carl

**From:** "Boutin, Chad T. (Fed)" < <a href="mailto:charles.boutin@nist.gov">charles.boutin@nist.gov</a>>

Date: Wednesday, October 30, 2019 at 1:43 PM

**To:** "Stein, Ben (Fed)" < <a href="mailto:benjamin.stein@nist.gov">benjamin.stein@nist.gov</a>>, "Materese, Robin L. (Fed)" < <a href="mailto:robin.materese@nist.gov">robin.materese@nist.gov</a>>, "Gerskovic, Leon (Fed)" < <a href="mailto:leon.gerskovic@nist.gov">leon.gerskovic@nist.gov</a>>, "Peralta,

Rene C. (Fed)" < rene.peralta@nist.gov >, "Miller, Carl A. (Fed)" < carl.miller@nist.gov >

Subject: Op-Ed on Google's Q computer

FYI, perspective on Google's claim and its significance in lay language:

https://www.nytimes.com/2019/10/30/opinion/google-quantum-computer-sycamore.html

Chad Boutin
Science Writer
NIST Tech Beat
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\*

"Ah," said Arthur. "This is obviously some strange usage of the word 'safe' that I was previously unaware of."