

Strategies for Working Remotely

Approved for public release



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Speaker Bio

Elaine Raybourn is a social scientist in the Statistics and Human Systems Group (Applied Cognitive Science) at Sandia National Laboratories. Her research focuses on virtual teams, HPC developer productivity, and transmedia learning. She holds a PhD in Intercultural Communication with an emphasis in Human Computer Interaction and a graduate certificate in Modeling and Simulation of Behavioral Cybersecurity. Elaine has worked remotely for a combined total of 15 years while at Sandia National Laboratories: from the UK as a guest researcher at British Telecom; Germany (Fraunhofer FIT) and France (INRIA) as a Fellow of the European Research Consortium in Informatics and Mathematics (ERCIM), and most recently as Sandia's Institutional PI for the IDEAS-ECP productivity project. She leads PSIP and the ECP panel series *Strategies for Working Remotely*.



Moderating the ECP panel series from home, in response to the COVID-19 pandemic.

Image Credit: Elaine M. Raybourn

Presentation Outline

PERSPECTIVE TAKING

- Rethinking what we know about working remotely
- Reimagining flexible work

REVISITING RESILIENCY

- Given what you've already heard about effective teaming and virtual collaboration (for yourself, individuals, and teams) – what questions do you still have?

CREATIVITY and INNOVATION

- Opening up a space for informal community dialog
- Communicating wide and deep

CONCLUSION and DISCUSSION

- Collaboration equity empathy, inclusion, authenticity

*“You have no idea how depressing
and fatiguing it is
to live in the same house where you
work.”*

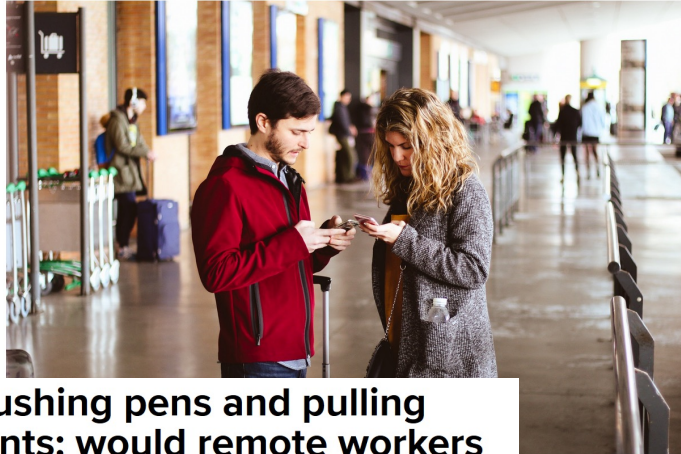
U.S. President Chester A. Arthur, 1881-85



What is your pre-pandemic experience with working remotely?

Mobile Baggage Tracking Apps Increase Traveler Satisfaction, SITA Research Shows

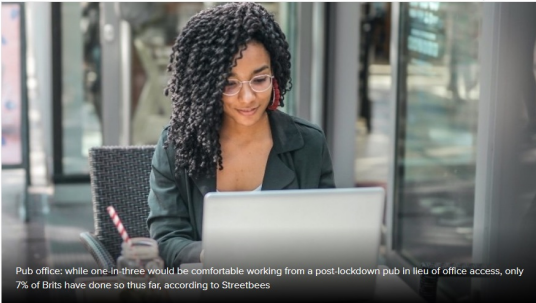
27 March, 2019 in Services Written by Tomás Romero



Pushing pens and pulling pints: would remote workers be comfortable working from a pub?

By Stuart Stone

08-Sep-2020 - Last updated on 08-Sep-2020 at 09:38 GMT



Pub office: while one-in-three would be comfortable working from a post-lockdown pub in lieu of office access, only 7% of Brits have done so thus far, according to Streetbees

1, 08:00am EDT

Onboarding: How To Remote Workers Early

n Baer Forbes Councils Member
Human Resources Council COUNCIL POST | Paid Program
iip

Head of Creative Strategy at The Game Agency
g Arcade - exciting, engaging and educating



GETTY

You are a remote worker when you travel, work offsite, work with a team on different floors of the same building, or from a co-located space across the laboratory complex, and yes, when you work from home.

How is working remotely now qualitatively different?



Image Credit: @GretchenTG / Gretchen Goldman



Image Credit: @GretchenTG / Gretchen Goldman

Why do we need strategies for working remotely?

**Our media habits
are changing
and**

**Our cognition is
increasingly
distributed**



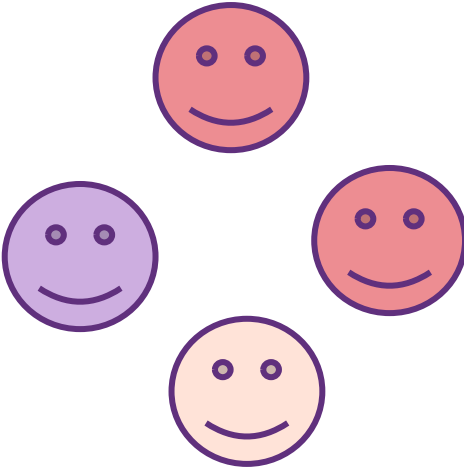


**degraded and
overUSED
communication
channel**

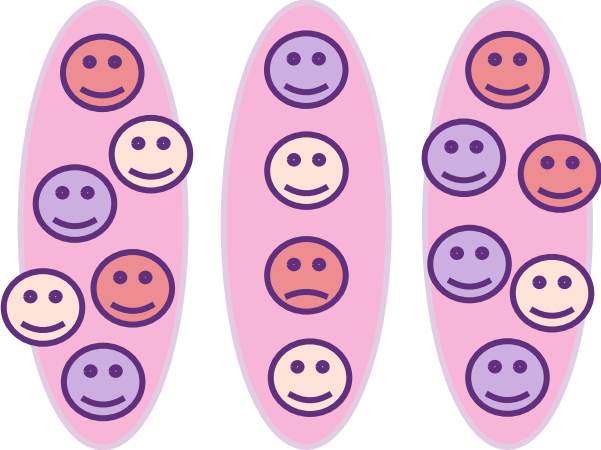
**Unplanned
change**

Fluid scenarios versus static configurations

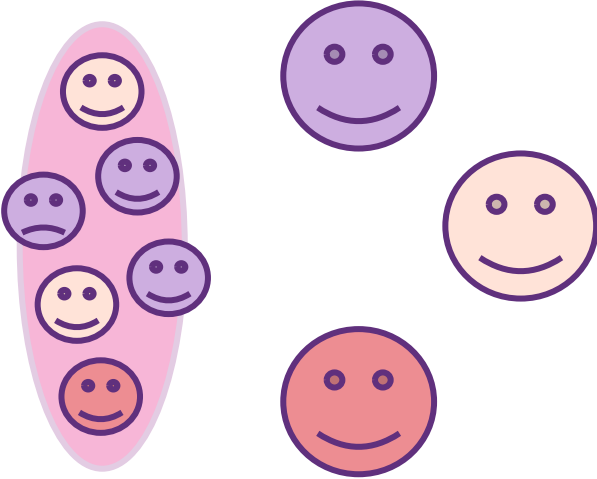
Remote First



Single or Multi-site




Flexible + Dispersed



- Imagine a day in the life of a flexible worker, virtual worker, or telecommuter.
- How many of the scenarios above are you a part of?

Lab-wide informal community dialog: the ECP Panel Series

How the DOE Labs are fighting COVID-19 +



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Panel Series on Strategies for Working Remotely

Upcoming Events Past events

UPCOMING EVENTS

Strategies for Working Remotely Panel Series – Sustainable Hybrid Approaches

October 29, 2020

In Spring 2020 many workers abruptly transitioned from a primarily on-site to a


In response to the COVID-19 pandemic, the Interoperable Design of Extreme-scale Application Software - Exascale Computing Project (IDEAS-ECP) launched the panel series Strategies for Working Remotely.




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Working Remotely Panel Series Archive

ALL PAST EVENTS

Strategies for Working Remotely Panel Series – How to Make Teams Tick

August 27, 2020

In response to the need for many to transition to unplanned remote work, the IDEAS-ECP Productivity project launched the panel series Strategies for Working Remotely. This panel discussion “How to Make Virtual Teams Tick” addresses ways to bring teams who have been disrupted by change back into balance.

[View Training Event >](#)

Strategies for Working Remotely Panel Discussion – Virtual Onboarding and Mentoring

June 30, 2020

Several laboratories have onboarded interns and new team members to work remotely with geographically dispersed teams. What are some lessons learned and best practices that we can take away from this experience? Staff members of DOE laboratories will speak about their experiences in onboarding and mentoring new hires virtually.

[View Training Event >](#)

Strategies for Working Remotely: Making the Transition to Virtual Software Teams

May 21, 2020

As working remotely has suddenly become a near-universal experience, many software teams are now functioning as completely virtual teams. This panel brings together staff members of DOE laboratories, who will speak about experiences in recent transitions from co-located and partially distributed software teams to fully virtual software teams.

[View Training Event >](#)

Strategies for Working Remotely: Challenges Faced by Parents Who are Working Remotely, and Overcoming Them

April 24, 2020

While working remotely is challenging enough, many are currently experiencing unique complexities involved with parenting, transitioning to online school at home, and

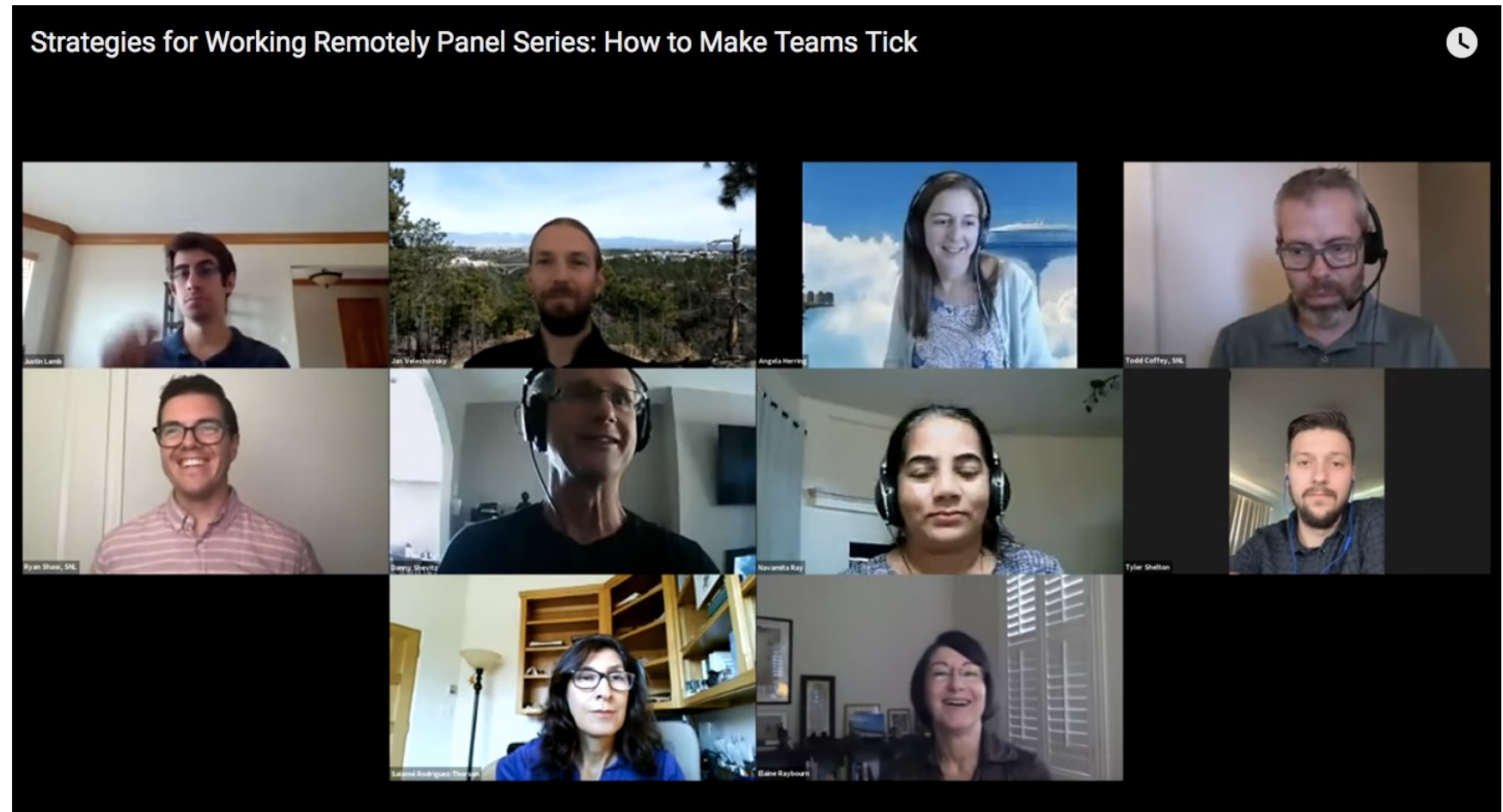
Strategies for Working Remotely: Advice from Colleagues with Experience

April 3, 2020

Working remotely has suddenly become a near-universal experience for staff members of research organizations, but for some it has been a way of life for years. This panel brought together five staff members of U.S. Department

Future of work: collaboration equity, empathy, inclusion, authenticity

- Be a team player, and if you lead a team – *do it well.*
- Leave digital footprints that are persistent, collaborative, and shared
- Know the pros and cons of communication and when to use for best results
- Carve out time on your calendar for thinking, reflection, exercise, and eating lunch
- Learn new skills, *unlearn old habits*
- Seek new perspectives on diversity and inclusion
- Expand your mental model of “productivity”
- Keep process changes that are positive – challenge assumptions, and “how we used to do it”
- Scale productivity of small teams to Teams of Teams



Screen capture of How to Make Teams Tick panel, August 27, 2020.

Image Credit: Elaine M. Raybourn

It's not perfect now, so use this opportunity to position our organizations for the future of work

Acknowledgements and Resources

- Special thanks to ECP, IDEAS, Ashley Barker (ONRL), Mike Heroux (SNL), Lois McInnes (ANL)
- Raybourn, E.M. Why We Need Strategies for Working Remotely: the Exascale Computing Project (ECP) Panel Series. State of the Practice Talk: Responding to Pandemic Driven Change, SC20, November 17, 2020.
- Raybourn E.M., Moulton J.D., Hungerford A. (2019) Scaling Productivity and Innovation on the Path to Exascale with a “Team of Teams” Approach. In: Nah FH., Siau K. (eds) HCI in Business, Government and Organizations. Information Systems and Analytics. HCII 2019. Lecture Notes in Computer Science, vol 11589. Springer, Cham.
- Raybourn, E.M., Milewicz, R., Rogers, D., Sims, B., Watson, G., Gonsiorowski, E., Willenbring, J. “A Data-driven Approach to Rethinking Open Source Software Organizations as a Team of Teams.” The International Conference on Software Engineering Research & Practice, SERP’21, July 26-29, 2021.
- This work was supported by the U.S. Department of Energy Office of Science, Office of Advanced Scientific Computing Research (ASCR), and by the Exascale Computing Project (17-SC-20-SC), a collaborative effort of the U.S. Department of Energy Office of Science and the National Nuclear Security Administration.
- Sandia National Laboratories is a multimission laboratory managed and operated by National Technology and Engineering Solutions of Sandia, LLC, a wholly owned subsidiary of Honeywell International, Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA-0003525. Images used by permission. SAND2020-3781 O, SAND2020-10983 C.



ECP
EXASCALE COMPUTING PROJECT

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BETTER SCIENTIFIC PRODUCTIVITY THROUGH BETTER SCIENTIFIC SOFTWARE: THE IDEAS REPORT

01/30/20



The US Department of Energy's Exascale Computing Project (ECP) provides a unique opportunity to advance computational science through an accelerated growth phase in extreme-scale computing. However, disruptive changes in computer architectures and the complexities of tackling new frontiers in extreme-scale modeling, simulation, and analysis present daunting challenges to the productivity of software developers and the sustainability of software artifacts.

A newly released report introduces work by the IDEAS project within ECP (called **IDEAS-ECP**) to foster and advance software productivity and sustainability for extreme-scale computational science, as a key aspect of improving overall scientific productivity. The report explains the IDEAS approach, outcomes, and impact of work (in partnership with the ECP and broader computational science community).

Target readers are all those who care about the quality and integrity of scientific discoveries based on simulation and analysis. While the difficulties of extreme-scale computing intensify software challenges, issues are relevant across all computing scales, given universal increases in complexity and the need to ensure the trustworthiness of computational results.

The [report](#) may be obtained from the ECP website.

For more IDEAS-ECP information: <https://exascaleproject.org/better-scientific-productivity-through-better-scientific-software-the-ideas-report>