

Increasing Collaboration By The Minute

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Abstract. You can increase or decrease collaboration directly by specific actions. Once you learn to see these actions in practice, you can notice immediately when the rules are used, or broken, and watch how collaboration changes as a result.

Introduction

In 1971, Gerald Weinberg [1] described the central role of a soda vending machine at a university's programming help desk. The department administration, disturbed by the students congregating around the machine, ordered it removed. Much to their surprise, the line at the help desk suddenly became much longer. It took a while before they worked out that the students congregating around the soda machine were helping each other solve their programming problems, and thus reducing the load on the help desk staff.

Around 1974, while creating the first Visa credit card clearing system, Dee Hock [2] and his staff used an odd project management scheme: Working in a warehouse, they simply put on the large wall all the tasks they needed to get accomplished, according to the date it needed to get done. Someone hung a cup on a string to mark the current date. Each day, someone moved the string to the right, and everyone jumped on whatever tasks were now to the left of the string.

Forty years ago, these stories were mysteries. In 1995, Hutchins [3] describing how merchant marines bring their ships into port, used the term "distributed cognition" to describe how the crew operates as a though a single brain with distributed components.

This phrase, "distributed cognition," helps us understand why proximity and collaboration are so important on software projects [4]. Each person on the team is busy forming a slightly different idea of what problem they are solving, and how the solution should look. Each is running into problems that possibly someone else on the team might be able to help with.

Viewed in this way, we see software development as a problem of mental search and synchronization. We have to add the difficulty of learning how the other people work, what motivates them, what angers them, and so on, and the difficulty in resolving differing opinions as to whose view to accept.

We see, from this perspective, how it comes that communication and collaboration are so important on software projects.

The communication aspect has been heavily studied. Thomas

J. Allen [4], studying (non-software) research and development teams, found that communication drops off at about 10 meters in distance (basically, people won't walk longer than the length of a school bus to ask a question). Olson and Olson [5] describe the nature of the productivity gain of collocated teams over distributed teams.

However, the matter of collaboration is not so clear cut. A search for "increasing collaboration" turns up more than 200 million results. The articles at the top of the list come from Forbes [6], Harvard Business Review [7], and similar. Here are the suggestions from the first two:

- Start a tradition
- Create a Board of Awesome
- Walk
- Eat right
- Don't be late
- Smile
- Take regular breaks
- Breathe
- Nap
- Get executive support
- Invest in signature relationship practices
- Model collaborative behavior
- Create a gift culture
- Provide training for collaboration
- Create informal communities
- Assign leaders who are both task- and relationship-oriented
- Build on heritage relationships
- Clarify roles and tasks

All of those are no doubt good and useful. However, I often find myself in a meeting or collaborative session and wondering, "What can I specifically do, now, to make this session go better (with respect to gathering everyone's insights and contributions)?"

As the meeting rolls along, the level of collaboration and contribution may change for the better or the worse. I wonder, "What triggered that?"

The question I wish to address is, what specific actions can people take to increase collaboration on a minute-by-minute basis. What induces people to collaborate more?

Enabling Bravery

In 2007, I conducted a small grounded-research study to address that question [8]. The raw results are posted online [9], so that others might reach different conclusions from the data I gathered.

In what follows, I highlight aspects of that study, what I have learned since, and how the reader might add to the list.

Based on the study, when I watch a group collaborate, I see the following:

- One person assumes enough bravery to claim the stage.
- Everyone else yields to that person.
- The speaker offers personal insights to the others.
- The speaker relinquishes the stage, opening it for someone else.

In that short sequence, the first is the most amazing. In deciding to speak, the person has to conclude:

"What I have to say is more important than what anyone else has to say, and they need to all be quiet and listen to me."

For many people, that is a frightening proposition. It is a claim of ego, and fraught with potential embarrassment.

As though watching a movie, I see a friendly game of Whack-A-Mole [10] (without the hammer, of course). Different people take turns standing up, talking, sitting down. In a good collaborative session, everyone takes a turn standing. In a poor collaborative session, only one or a few contributors stand, the others stay seated, their insights remaining lost to the group.

The breakthrough in my understanding of the raw data in my study came from the book "Impro," by Keith Johnstone, an acting trainer [11]. He describes how we immediately understand being above or below someone in a social hierarchy, and how our body and behavior changes as a result.

Seen this way, the Whack-A-Mole image is remarkably appropriate. Each person has to assert social superiority for a moment in order to contribute. How can we get all the timid people to do this, and how can we get all the dominant people to leave enough space for them to do so?

This turns out to be the central aspect of collaboration in this one study.

Specific Actions

With the help from some friends and colleagues, I was able to mine the data to extract several dozen specific actions that seemed to change the immediate state of collaboration. I put them into four categories:

- Lift Others
- Increase Safety
- Get Results
- Add Energy

It is important to note that the Whack-A-Mole image only captures the first two categories. But then a woman reader wrote:

"When I have a sympathy session with my girlfriend, we lift each other all the time, and we have all the safety we need. Are we collaborating?"

From that question came the need for the third category, Get Results. Without results, the session might have been agreeable, but is not what we would consider as "collaboration."

The fourth category came from looking for additional actions still not covered by the first three. It is possible there are more major categories, these are the ones I have to this point. Further in this article, I describe how to add your own recommendations to the list.

The list has proved very effective in decoding collaboration sessions. As we got used to noticing movements people made according to the list, we could see instantaneous changes in the group's mood. As participants, we could help defuse a negative action someone might have made with a counter-action to help restore a collaborative mood. I, personally, became very sensitive to when I unwittingly did the opposite of what the list said to do. I could see one or more other people shrink down and decide not to contribute for a bit. In short, the list turns out to be accurate, useful, and actionable, both in the positive and negative versions.

Collaboration Cards

Having the list on paper or in an article was sufficient for me, but did not spread well to other people. So I created a deck of "Collaboration Cards" [12] for others to learn from. While still not perfect, the cards allow people to study one or two actions at a time until they learn to recognize their being enacted or violated, by themselves or other people.

Here is list of actions in the current set of Collaboration Cards, with some additional notes on specific ones.

Note that these actions are not just for the session leader or facilitator. They can be used by every person in the session.

As a reader, you might look for which one is your preferred mode of operation in a collaborative session, and which one is most difficult for to you enact.

Lift Others

This is possibly the most important category, since what we are trying to do is get people to step forward when they might be timid.

• Lower Your Relative Social Position

By tone of voice and gesture, place the other person at your same level or higher. This includes self-deprecating humor. It does not mean groveling.

Commentary: This is the keystone action coming from the book, "Impro." Watch as someone bows their head when they speak, or literally shrink their body, to indicate their temporary reduction in status. This is most effectively used by people in important social positions.

• Recognize Others

Ask for their thoughts, accept an idea. When you build on their idea, let them know, so they get recognition. Delight in the ways they find to implement their ideas.

• Inquire, Don't Contradict

When inclined to contradict, inquire instead, to discover new information that makes the answer other than what you expected. Work to understand why the other person's answer is so different.

• Challenge but Adopt

It is uplifting when someone disagrees with you at first but then sees and adopts your view. Do this for someone else. Look to adopt their ideas where possible, so they know they are heard and their ideas valued.

Increase Safety

If "Lift Others" lets people operate from where they are, "Increase Safety" expands the collaborative area. As such, it is potentially more dangerous when you get it wrong.

• Be Yourself

People can usually tell if you are being yourself or acting. Being yourself shows there is nothing to be afraid of. Try "being in the bar at 9 p.m. with friends," quite obviously relaxed and your regular self. (This is not an excuse to be crude.)

Commentary: "Being in the bar at 9 p.m. with friends" is a potentially dangerous move. My colleague Jeff Patton phrases it this way: "There's this person in a suit with his Blackberry, messaging away, and suddenly he notices he's not in a meeting room any more, but in the bar at 9 p.m. with friends, and he puts his Blackberry away and joins the discussion."

• Say Something Honest, On the Edge of What You Think is Allowed

Say or do something that you would like to, but which might lie outside the expected boundaries. This widens the boundaries of what others can do. What others were afraid to say or do may suddenly appear "safe" to them.

Commentary: This is the most dangerous move in the list. Unfortunately, it happens to be my specialty. Jeff Patton, comments again, "By the time you get done violating all social decorum, and everyone is having a great time, suddenly those little obstacles other people were having look tiny in comparison, and they start to contribute." And of course, when I get it wrong, it is embarrassing.

• Add Humor

Humor lowers tension, allows relaxation. It is not the making of a joke that increases safety, it is that safe groups feel safe joking with each other. Personal attacks disguised as jokes do not count.

• Show You Won't Hurt

Show that you won't say things that hurt the other person. With someone to back up and protect them, a person might feel brave enough to step in and contribute.

• Leave Some Privacy

If there is nowhere safe to hide, fear goes up and safety goes down.

• Don't Leak Information That Will Hurt Someone

This should be obvious.

Get Results

There are different forms of "result" that improve the session.

• Get One Result

Getting a result is heartening. Good facilitators often generate a victory to help encourage and bind the group. If the session is ending, aim for a small goal, so that the group can end with a victory.

Commentary: A collaboration session is not a collaboration session without results. Getting a result, all by itself, changes and improves the texture of the collaboration. Some astute leaders and facilitators will specifically search for and arrange for the group to share a "win" either early in the day, or to save the group from depression at the end of a long, fruitless day.

• Say Something Valuable

Try to make your first speaking of value. This moves the work forward, and it encourages others to listen to you.

• Get Back From Diversions

Keep your ideas on topic. Going off track for a little while releases some tension in the room, but people appreciate being brought back.

• Clarify the Way Forward

Sometimes it helps to "pull the threads together," show what has been achieved, what forward looks like, or where the group is.

Add Energy

The final category addresses such things as posture while listening, or ways of inject new energy.

• Keep Your Energy High

Avoid being lethargic yourself. Body posture, muscle tone, eye alertness, all communicate your energy level. Even just sitting alert contributes energy to the room. Pay close attention to the speaker, digest what they say, ask a question.

• Contribute

Contributing your own ideas adds energy to the room. If everyone only sits and listens, the group will wind down. When people see that you are not afraid to give away your ideas, they also feel safer in offering up their own.

• Challenge

Challenge others' ideas. Not to put people down, but to explore the truth and limits of the ideas. Challenging an idea is part of being honest, listening intently, and making progress.

Commentary: This is the other potentially dangerous action in the list, and needs to be used with some care. There are people who challenge all the time, and become viewed as a nuisance to the group. On the other side, I have come to notice the following scenario: The group is tired or bored, the speaker is droning on. People are slouched in their chairs, waiting for the speaker to be done and the pain to be open. Suddenly, one of them hears something interesting, leans forward, and asks a question about or challenges what the speaker just said. In a moment, everyone wakes up, sits forward, and listens. At this moment, collaboration has started again.

Using the List

We quickly learned that it is too difficult to hand the list of actions to everyone and ask them to notice the behavior of the group while also participating in the session. Whether it was with a list or cards made no difference.

What worked was to give each person just one card or item from the list, and ask them only to notice occasionally when it was being used or violated. Variations on this idea include asking them to make tick marks on a paper when they see it used, other tick marks for violated. The important thing is not to take too much of the person's attention away from the content of the meeting.

One pair of trainers who train upcoming facilitators hand out one card in a facilitation session led by other students, and ask them to watch their one card in action or violation during the session. They then trade insights afterwards.

ABOUT THE AUTHOR



Dr. Alistair Cockburn, one of the creators of the Manifesto for Agile Software Development, was voted one of the “The All-Time Top 150 i-Technology Heroes” in 2007 for his pioneering work in use cases and agile software development. A renowned IT strategist and author of the Jolt award-winning books “Agile Software Development” and “Writing Effective Use

Cases,” he is an expert on agile development, use cases, process design, project management, and object-oriented design. In 2001 he co-authored the Agile Manifesto, in 2003 he created the Agile Development Conference, in 2005 he co-founded the Agile Project Leadership Network, in 2010 he co-founded the International Consortium for Agile. Many of his articles, talks, poems and blog are online at <http://alistair.cockburn.us>.

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REFERENCES

1. Weinberg, G., *The Psychology of Computer Programming: Silver Anniversary Edition*, Dorset House, 1998.
2. Hock, D., *Birth of the Chaordic Age*, Berrett-Koehler Publishers, 2000.
3. Hutchins, E., *Cognition in the Wild*, MIT Press, 1995.
4. Allen, T., *Managing the Flow of Technology: Technology Transfer and the Dissemination of Technological Information Within the R&D Organization*, The MIT Press, 1984.
<<http://www.ics.uci.edu/~corps/phaseii/OlsonOlson-DistanceMatters-HCIJ.pdf>>
5. Olson, G., Olson, J., “Distance Matters”, *HUMAN-COMPUTER INTERACTION*, 2000, Volume 15, pp. 139–178.
6. <<http://www.forbes.com/sites/ekaterinawalter/2013/12/23/how-to-reduce-stress-and-increase-internal-collaboration-in-the-workplace/>>
7. <<https://hbr.org/2007/11/eight-ways-to-build-collaborative-teams>>
8. <<http://alistair.cockburn.us/Collaboration%3a+the+dance+of+contribution>>
9. <<http://alistair.cockburn.us/Collaboration%2c+the+Dance+of+Contribution%2c+raw+notes>>
10. <<https://www.youtube.com/watch?v=GVJL9oXgsAA>>
11. Johnstone, K., *Impro: Improvisation and the Theatre*, Routledge, 1987.
12. <<http://alistair.cockburn.us/Collaboration+Cards>>

One town manager gave the cards to her division supervisors, the police chief, the fire chief, chief of sanitation, and so on, for them to use with their subordinates. She was less concerned with collaboration inside a single meeting, than with building a culture of collaboration over the long term. Her insight was that the same actions have longer-term effects as well as in the moment.

Some people adopt a habit of carrying around one card with them each day, so they can become sensitive to that one item in many settings, without having to focus on it all the time.

One person put a different card on his car windshield visor day, as a form of passive learning as he drove to work.

One used that has been proposed, but not yet applied, to my knowledge, is to video a meeting or collaboration, without any use of the list of actions, and then to review the video afterwards, using the list. In the review of the video, everyone would have the entire list at hand, and would call out when an action enacted or violated an item on the list. They could then replay and examine that moment on the video, and decide what they, as a group, wanted to learn from the moment.

This video-and-replay technique would be a good way to notice additional actions, not on the list, that also contribute to improved collaboration.

Discover More Yourself

The list is obviously not complete. I believe it would be a good exercise for a group to personalize it by creating their own addenda to the list.

Here is the technique I used to create the list in the first place, adapted to a group adding to it:

- Have a meeting or collaborative session as normal, but ask people to notice at what moments the mood to collaborate increased or decreased.
- Write down in detail and objectively what happened just before and just after that moment.
- Now comes the hard part: attempt to decode what caused the shift in mood. What underlying action made the difference at that moment?
- Give is a cute, short, verb name. Use the imperative voice, so it is a “Do This” type of a phrase.
- Watch it in action, and see if it actually makes a difference, and if violating it causes a loss in collaborative mood.
- When you have a good addendum, publish it online for others to experiment with.

Summary

It is possible for individual people in a collaborative session to directly affect the mood for collaboration for better or for worse, minute by minute.

This article listed 17 specific actions, in four categories:

- Lift Others
- Increase Safety
- Get Results
- Add Energy

Enacting those actions tends to increase the mood for collaboration, violating them tends to decrease it.

The list is, of course, not complete. Each group might profit from adding to the list as its own form of learning and personalizing the actions that improve collaboration.