

# Crowd**Smart**



## Finding Common Ground

A new type of social collaboration  
based on collective intelligence and AI

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# Introduction

The capacity of groups to solve problems rests on finding common ground. At the moment, our nation and our world struggle. It is a struggle between building and preserving identity (be it national, political party, corporate, or individual) and the capacity to form bridges of understanding and knowledge discovery. Managing the challenging intersection of identity and idea exploration can either undermine or reinforce how we work together, whether in the business enterprise or how we govern. Identity-based interaction often works to preserve its self-interest and can likewise be subject to vilification. Rather than finding common ground, identity-based conversation strategies often create disparities of power that thwart opportunities to find alignment.

In a recent conversation with a group seeking approaches to how we can heal the divide in the US (or even in the world), top of mind was the reality that it cannot be done via social media. Why? Because the slightest misunderstanding results in demonization. That is the reality of our current situation.

This article presents a new approach to social collaborations, whether in business decisions, public policy, or global issues. We discuss the use of AI technology to unify rather than divide.

# The Origins of AI

Optimizing media streams to reinforce or manipulate our view of the world is a destructive use of AI technology. Reinforcement of divisiveness is detrimental to social good and progress globally. It opens us to tyranny.

History demonstrates that societal advances occur due to shared values and beliefs based on a shared view of facts. The scientific method gave birth to global technological advances because the mechanism of validation rested on peer review. Collectively we advance in our ability to solve problems by reasoning together. For example, collectively, societies decide on justice systems, transportation, and food supplies. Collective reasoning based on evidence is foundational to our ability to advance solutions to problems.

Artificial Intelligence in its earliest form embraced two approaches:

1. **Knowledge-based:** Computational models of human knowledge and reasoning)
2. **Perception-based :** Algorithms for learning functions and patterns from data.

Most of what we read about today focuses on the second item. Deep learning is perception-based; it learns patterns of alignment in data to form models that mimic the human ability to perceive and categorize. In the remaining sections of this article, we will demonstrate an AI technology that combines 1 and 2 to make something much larger than the individual parts. This next-generation AI learns patterns in human reasoning to form models of their collective knowledge. This results in collective decision-making that is devoid of personality influence. Successful ideas become paramount regardless of origin, arriving at common ground.

# Our Vision

Our vision is an easy-to-use implementation of a high-level mission posted on MIT's Center for Collective Intelligence website:

*how people and computers can be connected so that collectively they act more intelligently than any person, group, or computer has ever done before*

The new type of social collaboration, based on collective intelligence and AI, listens to the entire audience's interactions that have come together to solve a problem, make a prediction, advise a decision-maker, and consider the outcomes of a decision. The AI<sup>1</sup> functions as **a super-intelligent facilitator** whose job it is to:

1. Guide the discussion.
2. Listen to everyone generously and equally.
3. Encourage the generation of new ideas.
4. Learn areas of alignment.
5. Drive the discussion to a conclusive outcome.
6. Record every interaction and result into a computational knowledge model open to inference, query, and simulation.

The social collaboration described here is akin to a virtual workgroup at scale. Conversation in the internet world is a bit of an ill-defined term. It generally means getting others to pay attention to your opinion by repeated and loud assertions. In the world that emerged on the internet, conversations fell more into the category of the pre-internet model of message broadcasting and hoping for trickle-down results or eavesdropping on others' public conversations and bombing them with opinion. Blast! Blast! Blast!... and then hope for a response. That is not a real conversation. Don't try this at home!

<sup>1</sup> For a more in-depth view of the technology see: <https://towardsdatascience.com/transforming-organizational-decision-making-with-collective-reasoning-c859c1a9d991>

A real conversation starts with *generous listening* with an eye on an effective response that builds relationships. Try this at home: “How can I be of help?” Listen. Prioritize. Respond. Generous listening builds relationship equity. Does this exist today on the internet? Not at all! Try to find a way to get the ear of nearly any major vendor (Zappos is an exception), and you will fail - other than to get bombarded with sales calls, bot “conversations,” or annoying messages.

A conclusive conversation—one with results—needs to be guided to a focused outcome. What if you could ask a simple question:

“What can we do to improve your experience with [product/service]?”

This system would deliver a prioritized list of action items that were representative of the preferences of the entire market for that product because the AI can learn economic preferences at scale (by economic preferences, we mean the law of comparative judgment, the A/B test delivered ‘at scale’).<sup>2</sup>

This AI technology is delivered as a **Collective Reasoning Facilitator**, which we will shorten to CRF.

<sup>2</sup> For a more in-depth view of the technology see: <https://towardsdatascience.com/transforming-organizational-decision-making-with-collective-reasoning-c859c1a9d991>

# Introduction to CRF

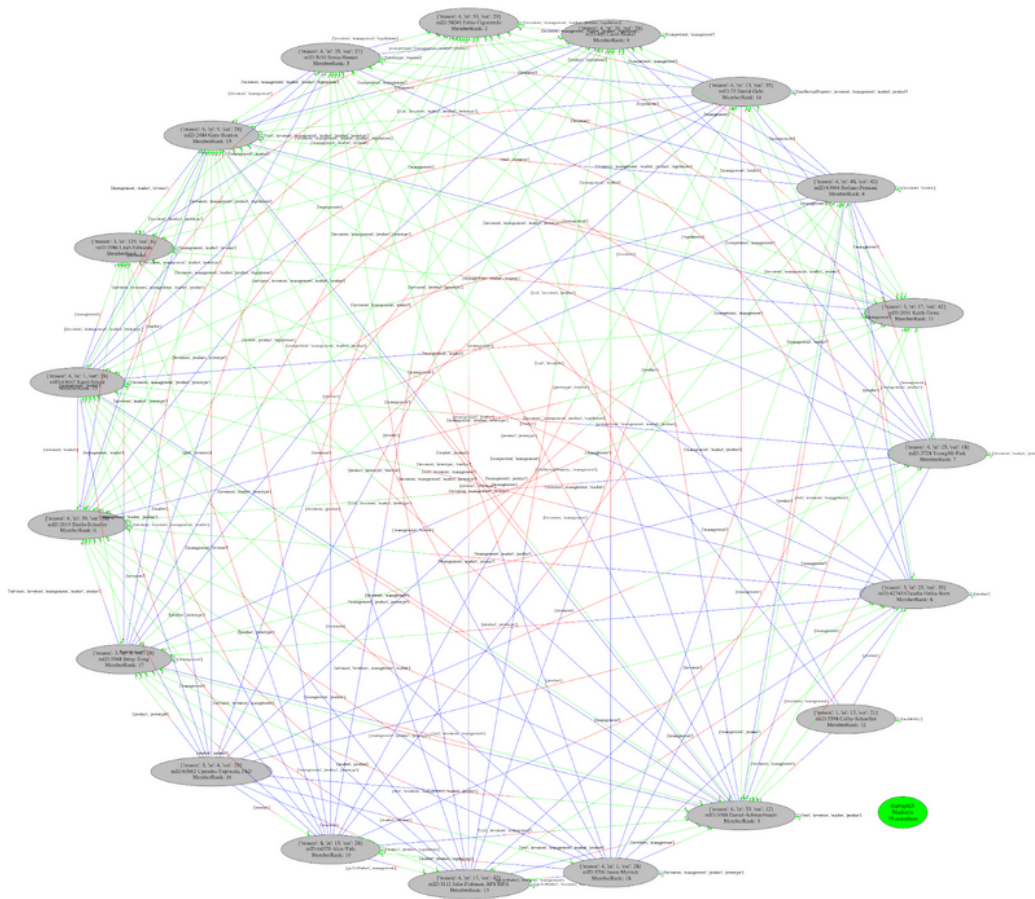
At the simplest level, this new CRF can serve any person with no specialized training who simply wants to 'know what others know or think' and easily understand the results to take action quickly and keep moving forward. Through the CRF, they can obtain this insight with a simple open-ended question (or set of questions) to get a clear set of prioritized insights from a broad group of people in a few hours or days and not need an analyst to help them unpack the data. For example, a familiar focused question with an outcome we might ask is the Net Promoter Score (NPS) question:

**Would you recommend [product/service] to a friend or colleague?**

The use of the CRF not only captures the classic NPS score but also obtains the refined, prioritized set of answers on how to improve your NPS score simultaneously. To enable transparent and generous sharing, the CRF keeps the identities of each participant to itself. The CRF asks for a quick 1-10 quantitative rating, and then, importantly, it facilitates this new form of social conversation focused on the six steps we discussed earlier.

For those who respond to our opening question with 9s and 10s, it asks, "What would you say to recommend [product/service]?" For the passives and detractors who responded with 1-7, it asks, "What can we do to make this a more compelling experience for you?" At first, the CRF asks them to share all their thoughts [item 2] generously. Then it guides the conversation by showing them a curated set of seven responses from others from the hundreds or thousands of responses [presenting these responses anonymously, without the author's identity revealed] and encourages them to prioritize those where they agree and prompts them to add-in their new ideas if others' comments inspire them. [item 3, 4].

During this brainstorming session, the CRF builds a knowledge model of all the interactions that looks like this:



Each node or member in the model is an individual creating and sharing ideas. The CRF marks all of their exchanges by noting what they are sharing and summarizing and helps discern their feedback into topics and themes. From this web, it can learn with statistical accuracy what ideas are ranked as important by the entire peer review process, thus knowing what will be predictive of the most successful outcome [item 5].

From this model, the CRF can deliver reports [item 6] that tell you the Net Promoter Score and also summarizes the handful of action items that, if acknowledged and implemented, will have a very high degree of probability of driving up the NPS. The CRF will also deliver an excellent copy of the “pass along” message in the customer's language for marketing campaigns. The CRF creates this persistent computational model of the entire process that perpetually preserves all of the ideas and knowledge generated in this interaction. The CRF allows you to ask “what if” questions of that knowledge model and provide

answers weeks, months, or years later for back-testing and long-term improvement.

Your group can be as big as the internet because the underlying AI technology in this CRF is based on the scientific method of citation referencing. This AI is similar to what Google initially used (the PageRank algorithm) to rank the importance of every website on the planet with statistical accuracy. The mathematical foundation of the CRF is similar to PageRank and will scale to groups of any size. The CRF weaves a web for the ideas to determine an accurate ranking of ideas shared, no matter how big the audience. It truly can learn the rank-ordered preferences from everyone. The CRF radically reduces the cost of collaboration. You no longer need to shut down your website to inbound requests because you don't know how to figure out what to do with the input. Simply maintain a CRF to help your audience self-refine their feedback into actionable priorities and leave the conversation open for as long as it serves you.

The CRF weaves a web of the people and knows who is the most influential contributor of exciting ideas and knowledge by the peer-reviewed ranking process. With repeated use, the CRF will learn each person's influence and domain expertise who participates in these social conversations and map their relevance as reliable resources to bring insight to various topics.





## Launching CRF

The CRF is easily launched with one or more conversation starter questions that are much easier to create than polling questions because you get answers to questions you didn't think to ask. Instead, you simply start the social conversation with a few provocative questions, and if you like, you can put in your best-guess answers. These might be the same ideas you might have tested in a poll, but instead, they are just seed ideas, and you will soon see who agrees with your suggestions (or not). You don't have to anticipate the answers or the 'shape of the data' in advance because the group itself is generating its own unique, original and refined feedback. You've opened up the opportunity to the group instead of testing what you think you know and seeking validation for it. The conversation starters are all you need to frame the context of the discussion, the discussion. An individual can engage the CRF to help with a simple but highly valuable task such as:

What should we prioritize for our next team meeting?

Alternatively, the CRF can just as quickly support a complex decision process, such as improving the predictive accuracy of a team deciding on an investment or merger decision. Unlike traditional environments, casting a broader net to include more people and solicit more comprehensive opinions with the CRF increases the accuracy of the knowledge gained. The CRF itself measures the diversity of thought of the group avoiding 'groupthink'. The CRF technology was tested in identifying emerging innovations to determine which were likely to be attractive to investors. With over 150 evaluations of innovations, that test validated that the collective intelligence and AI solution (the CRF specifically) is >80% accurate in predicting the ability of innovation teams to attract long-term funding.

The CRF is not just for business but can also help us heal our divisions. The CRF works to know what each person knows and use it to bring people together. For example, mayors across the US could use the CRF to brainstorm solutions to deal with homelessness. Likewise, NATO could use the CRF to be more nimble in their operational decision-making.

Fundamentally, we are smarter together. This is a scientifically founded principle demonstrating that a collection of cognitively diverse minds outperforms any individual expert in predictive accuracy. The CRF, presented here, enables a new kind of results-oriented social collaboration based on shared ideas, beliefs, and preferences. We can find common ground through the CRF, pathways forward with clear signals and results.