# The Missing Tool in the Design Leadership Toolbox: Integrating Conflict Management into Collaborative Design

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*Businesses often face the challenge of reaching out to people in contexts that are wholly different from the world they operate in and they are regularly attempting to create experiences for consumers that exist within complicated dynamics of social, economic, political, and cultural flux.*

*Arriving with training that encompasses everything from design research, iterative prototyping, tolerance of ambiguity, process-driven approaches, and an appreciation for wicked problems, Designers are uniquely positioned to be in roles of leadership within these businesses who are trying to create experiences for consumers.*

*Design Leaders ARE the bridges between businesses and the people they're trying to serve.*

*Unfortunately, while Design Leaders can speak in the voice of the customer, drive the innovation process, advocate for deferral of judgment, and diverge and converge with the best of them, one critical skill set is lacking from their Design toolbox: conflict management. Design Leaders need to develop conflict management tools or they will be left off of the invitation when all the leaders sit down around the industry table to talk about innovation.*

*Conflict management as an area of research and development has been around for quite some time and has a number of valuable tools that can be easily adapted to fit into Collaborative Design processes. This paper will provide a deeper dive into one tool that has been developed specifically for Design Leaders to incorporate into the convergent phases of their Collaborative Design process: the Interest-Based Converge Process.*

## INTRODUCTION

The last decade has seen social, industry, and practical trends calling for collaboration as the answer to achieving alignment. Whether it's called co-design, participatory design, people-centered, or user-centered design, insights developed around people's needs are widely recognized as being the lynchpin to driving the Collaborative Design process for the sake of creating more relevant and innovative outcomes.

Design Leaders are in a perfect position to facilitate Collaborative Design as the champions of the Design process. Unfortunately, the critical skill set of conflict management is lacking from many Design Leaders' toolbox.

Collaborative teams of people from varying perspectives, backgrounds, and contexts are common environments for conflict to arise and Design Leaders need to begin developing conflict management tools to address the issues that arise.

Many tools and methods exist for Design Leaders to incorporate stakeholders into their design process (the majority of which are for the sake of divergence and ideation). [39] However, Design Leaders should look to the field of conflict management research for tools that can be adapted to fit Collaborative Design processes.

One such tool has been developed for specifically for Design Leaders to use when collaborative design teams are trying to make a decision, which is when conflict is most

common. The process is an articulated set of steps that incorporates interest-based negotiation into the convergent stages of the design process and is called the Interest-Based Converge Process.

The title "Design Leader" has been used in this paper with the intent of speaking to an aspirational audience. Regardless of whether one considers themselves a visualizer, researcher, manager, strategist, or designer in any other emanation of the word, this author believes that everyone in the design industry should aspire to lead (projects, processes, organizations, etc.) through their unique set of skills.

The Interest Based Converge Process is agnostic of what type of project is being collaboratively executed. The author is a design strategist and researcher by trade and all of the examples provided to support this paper come from this context. However, regardless of whether someone is designing a research project, executing a research project, planning a design activity, executing a design activity, etc., the skills/processes/tools apply. The only real requirement is that the activities happen with other people in order for conflict to arise.

## PROBLEM SPACE: COMPLEXITY & COLLABORATION

Trends in business today tell us that companies are increasingly putting people (users, consumers, etc.) at the center of their decision-making and finding great success doing so. A significant challenge with this is designing for the complexity of people themselves. In addition to the complexity of being a human being, each of these people experience products and services within a complex context of home, career, family, politics, religion, and so on.

In addition to the people they are trying to serve, organizations are by nature complex creatures as well. Between ever-shifting internal politics, increasingly competitive markets, and the threat of endless reorganizations, companies must constantly evolve in order to stay one step ahead of the market. While this may be slightly easier for smaller, more agile companies, the core complexities of being in business and serving consumers still remain.

If we accept that there is value in putting people at the center of organizational decision-making (and we do), then the task of complex organizations trying to serve complex human beings experiencing products and services within complex contexts becomes daunting and well... complex.

No single designer, executive, or decision maker can account for all this complexity, which creates the need for an interdisciplinary approach to designing experiences. When you have more people from more varied backgrounds involved in the design process, experiences (products, services, and the systems they live within) can be more dynamically designed to serve the complexity they will exist within in a more holistic and valuable way.

Whether it's called co-design, participatory, consumer-centric, or user-centered design, businesses are finally taking the people-centered approach to designing experiences very seriously. [1, 5, 6, 12, 14, 15, 42]  Research commissioned in all three of these areas [1, 2] recognizes the importance of people with differing backgrounds lending their individualized expertise to solving problems of all kinds. Many design professionals [1, 14, 15, 42] already recognize the potential for collaboration as a key resource for innovation.

## DESIGN LEADERS ARE THE BRIDGE

> Designers are unique to the dialogue about collaboration in that they can play either a content role or a process role. In a content role, designers have interests regarding the subject matter of their design. In a process role, their interests concern how the process proceeds and how the group functions. When working in teams of designers and stakeholders, designers are constantly positioning and repositioning themselves between these two roles. [25]

Design Leaders understand the need for alignment—both within the business they're serving and between the business and their consumers. The last decade has seen social, industry, and practical trends calling for collaboration as the answer to achieving alignment. Insights developed around people's needs are widely recognized as being the lynchpin to creating alignment and driving the Collaborative Design process for the sake of creating more relevant and innovative outcomes. [40, 41, 44]

The average business executive, marketing manager, or sales director most likely do not operate with the same perspective of or within the same context of a Millennial shopping for renter's insurance, a single mother trying to teach her child how to drive safely, or a lifetime forklift operator. Appreciating and understanding these varied perspectives from wildly differing contexts through research efforts is the key to unraveling this complexity.

Arriving with training that encompasses everything from research, iterative prototyping, tolerance of ambiguity, process-driven approaches, insight translation, and an appreciation for wicked problems, Designers are uniquely positioned to be in roles of leadership within these businesses who are trying to create experiences for consumers.

Design Leaders ARE the bridges between businesses and the people they're trying to serve.

Regardless of the challenge, Design Leaders recognize that Design serves as a creative problem-solving process. [4, 8, 11] While the actual process may differ from one designer to the next and one challenge to the next, the gestalt of design processes generally consists of three steps: Problem Definition, Solution Generation, and Solution Implementation.

It is in Problem Definition that Design Leaders use their research toolkits (including everything from ethnography to co-creation) to create a deep understanding of the people they're trying to reach as well as the complex contexts these people exist within. Solution Generation sees Design Leaders bringing together the consumers' perspectives and the business' objectives to facilitate identification of opportunities for innovation. These opportunities are then tested, refined, and iterated on in Solution Implementation. [4]

Design Leaders are taught to approach this process with an open mind, an appreciation for the unknown, and a deep respect for the need to defer judgment. This respect has given rise to acknowledging the value in separating the activities of diverging and converging. [1, 4, 5, 8, 11, 14, 15, 26, 27]

Diverging is the opening stage of each step during which possibilities are generated. In order to successfully diverge, Design Leaders defer any thoughts or behaviors that might constrict the generation of possibilities. The convergent stage, during which Design Leaders reintroduce behaviors of judgment, is for the purpose of making decisions and narrowing the field of possibilities. [4, 27] It is during this convergent stage when the potential for conflict is highest in collaborative design.

## VALUE & ROLE OF CONFLICT MANAGEMENT IN COLLABORATIVE DESIGN

Design Leaders are in a perfect position to facilitate Collaborative Design as the champions of the Design process. Unfortunately, while Design Leaders can speak in the voice of the customer, drive the innovation process, advocate for deferral of judgment, and diverge and converge with the best of them, one critical skill set is lacking from their Design toolbox: conflict management.

Working with so many people with so many varying perspectives, backgrounds, and contexts is the perfect breeding ground for conflicts to arise and if Design Leaders are truly to become the facilitators—or the bridges, if you will— then they need to begin developing these conflict management tools that are missing from their toolbox or else they will be left off of the invitation when all the leaders sit down around the industry table to talk about innovation.

Factors required for successful collaboration have been defined and include: trust, understanding, respect, clear and attainable common purpose, interdependence, shared values, accountability, shared commitment, democratized leadership, shared "time" and "place," well-defined relationships, agreed rules of engagement, mutual support, shared language, organization, appropriate people, flexibility and adaptability, balance and equity, conflict management, mutually beneficial rewards, and effective conversation. [9, 10, 29-33, 35, 37, 45] While all of these factors are important, the key factor that has significant impact on all others (either positive or negative) is the ability to effectively manage conflict. [7, 9, 10, 19, 29-33, 46]

Conflict is defined as a situation in which the concerns of two or more people appear to be incompatible. [23] While it is both natural and desirable, conflict unmanaged will only become more serious. [16, 17, 36] As seen all around us in every arena from the nightly news to pageant parents, our society has a strong cultural belief in an adversarial approach to conflict. [16, 17, 36]

Conflict is usually seen as a result of one (or a combination of) the following causes: different views or interpretations of data; incompatibility of interests; outside structural impositions on situation; incompatible personal beliefs or values; mistrust or negative emotions among relationships. [23]

In the field of Conflict Management academics recognize that the traditional approach to conflict is when two parties disagree, there is an "argument" in which each tries to prove the other party wrong. [18, 24, 28] An "argument" can vary wildly in practice and encompasses everything from a mild verbal disagreement between individuals to military aggression between nations.

Negotiation, however, is an alternative method of managing conflict. Negotiation is defined as the process of engaging in a dialogue, discussion or written exchange aimed at resolving conflict. [23] This approach is critical when working with collaborative teams— especially when maintaining positive working relationships is required.

There are many approaches to negotiation—each of which yields its own benefits in different situations. The approaches to negotiation are: reconciling underlying interests (needs), determining rights (laws or contracts), determining who is more powerful (the ability to coerce someone to do what they don't want to do). [28]

For the sake of maintaining relationships and meeting the needs of multiple parties in complex challenges, Interest-based negotiation presents a relevant and valuable problem-solving approach. [17] In this approach, parties set aside focusing on positions

(demands/tangible out comes that parties cling to) in order to educate each other about their interests (underlying considerations/needs that motivate people to take a position) and jointly create solutions that meet those needs. [23]

Through addressing the underlying interests, many other causes of conflict are often naturally addressed [16, 17, 24, 36] and additional benefits include time and cost savings; a greater sense of self-determination and creativity; and increased satisfaction with outcomes and relationships among participants. [23]

When you have an interdisciplinary team from varied backgrounds coming together for the sake of collaborative design, it is inevitable that these stakeholders will bring wildly varying perspectives to the table. Building empathy and shared understanding among these stakeholders and their varying perspectives is the starting point to setting up successful interest-based conversations. [17, 23]

Without an understanding of conflict management tools, Design Leaders often stumble as a result of some common misconceptions. The root of these misconceptions is that "compromise" and "accommodate" are synonymous with "collaboration" and are the best way to make a decision. [25] Despite the illusion of collaboration in these approaches, they are actually counter-productive to collaboration and finding solutions to meet the needs of multiple parties. [45] Both approaches are ultimately the quickest route to "designing by committee" which results in solutions for the lowest common denominator. [21, 38] Oftentimes, this means that they take the form of voting to let the majority rule or splitting the difference between solutions, which produces results that are either watered down or pared down to the barest minimum that satisfies a few people—as opposed to truly collaborating to identify solutions that address the needs of all parties.

By incorporating interest-based conflict management tools into the decision-making moments of collaborative design, Design Leaders can avoid the pitfalls of designing by committee.

## The Design Leader's Conflict Management Toolbox

If designers are to function successfully as leaders of the collaborative design process in both process and content roles, methods and tools need to be developed to aid them in navigating rocky waters when conflict inevitably arises. Much to Design Leaders' benefit, conflict management as an area of research and development has been around for quite some time and has a number of valuable tools that can be easily adapted to fit into Collaborative Design processes.

One such tool has been developed specifically for Design Leaders to manage conflict in collaborative design: the Interest-Based Converge Process. Iterations of testing and refinement were conducted through participant observation, focus groups and interviews with teams of participants working on a series of various collaborative design projects in order to develop this process that would integrate interest-based negotiation into convergent stages of the design process. [25]

The Interest-Based Converge Process has been applied successfully in many contexts. In one such situation, a design research team was attempting to develop a methodology tailored to a company's complex research objectives. Once the initial ideas were identified, two approaches emerged as strong possibilities—conducting observation before an evaluation or vice versa. Both approaches had clear and relatively equal pros and cons and the team

struggled to agree on which approach would be best. The team (which only consisted of 3 people) was on the verge of simply voting and letting the majority rule, however doing so would alienate an entire 1/3 of the team and could effect the atmosphere of collaboration. Through the Interest-Based Converge Process, the team identified a previously unspoken underlying need that could be used to evaluate the options—the idea that the clients felt the observation would be more interesting for their executives to participate in and that the executives would not be willing to sit through the entirety of every interview. In bringing this underlying interest, the team was able to collectively agree that only one of the two possible directions would satisfy this deciding criterion.

In another example, two junior visual designers were tasked with collaboratively developing the design guidelines for a collection of reports and marketing materials. Both had developed multiple moodboards of possibilities, but each had become particularly attached to a single moodboard that they felt was best. When viewed as an entire solution, the moodboards were representative of each designer's individualized set of beliefs about what consisted of "good taste"—the ultimate example of position-based conflict. They were at a stalemate and resorted to spending a good amount of time going in circles arguing about why they were each right and moved into making disparaging statements about the other's design choices. This situation quickly declined and ultimately the working relationship between the two designers had become tense and unproductive. After being coached on the Interest-Based Converge Process, the designers were able to develop a set of evaluative criteria based on the underlying interests that each believed defined what "good taste" meant. In working together to identify these criteria, they were able to re-establish a respect for their aesthetic similarities and differences. Using these interest-defined evaluative criteria, they were able to systematically evaluate each component of their moodboards in isolation (type, palette, etc.) and distance themselves from the moodboards themselves, which had become the representation of their individualized design identities. This process allowed them to create a collaboratively defined set of design guidelines that respected each of their individual aesthetics and recombined them into a stronger finished effort.

When allowed to engage in unstructured decision-making conversations, teams often struggle with staying focused on underlying needs and would habitually fall back into the familiar pattern of position-based argument. In an attempt to avoid arguing or arrive at a timely decision, many teams default to voting, compromising an individual's need, and/or designing for the lowest common denominator that everyone can agree on.

The Interest-Based Converge Process was developed to directly address these faulty patterns of non-collaboration and provide a structured, positive, respectful process for making a mutually beneficial decision. The process is an articulated set of steps that incorporates interest-based negotiation into the convergent stages of the design process in order to facilitate more people-centered collaborative design.

The following guide provides the Design Leader with directions to navigate each step, pointers to facilitate conversations and variations that the Design Leader can incorporate into the process. One variation explains how steps can be altered to include the use of negative evaluative criteria. The second variation provides a method for the group to narrow a larger number of alternatives before they begin the process because the Interest-Based Converge Process works best when a collaborative design group is evaluating a "handful" of alternatives (ten or fewer, but three to five alternatives is ideal).

## Interest-Based Converge Process [25]

### 1. Frame the process

The first step is critical to set the entire process up for success. The Design Leader should identify what step in the process is being converged on and what the outcomes should be in order for this process to be considered a success. Once these items are understood, the Design Leader should articulate the alternatives that are being weighed in a way that everyone clearly understands the options before them.

### 2. Identify interests

The second step is for participants to identify the interests they must have met by the outcomes. An interest is any need regarding the outcome of this decision that must be met. As prompts, the Design Leader may encourage generation of interests by explaining the categories of Personal- and Project-specific interests.

Personal interests may include, but are not limited to: professional development needs, proof of success, and learning experience. Project specific interests may include, but are not limited to: time-specific needs, budgetary-specific needs, location-specific needs, functional needs, material needs, audience needs, purpose-driven needs.

Participants in a collaborative environment need to maintain a clear division of private action and public action, where private action is any articulation of ideas that occurs in privacy and isn't required to be shared with the group and public action is any articulation of ideas that is shared (required or not) with the group. It is important, therefore, that the Design Leader create a clear division of private and public actions. This is done by encouraging each participant to first self-identify needs on a private space, such as their own computer or pad of paper. This action contains an element of reflection and a certain degree of honesty that creates a feeling of vulnerability. Maintaining privacy managed the discomfort enough to allow all the participants to be truthful while examining their interests.

After individually identifying interests, all the participants should then be encouraged to share their interests with the group in order to develop a collective list of interests that must be addressed by the outcomes. In following this procedure, individuals accept some responsibility for whether their needs are met or not in their decision about whether or not to share their self-identified interests with the group.

Once individuals share their interests with the group, the Design Leader should lead the group in a round of discussion identifying any additional interests that may have been sparked by seeing others'.

### 3. Generate evaluative criteria

In the third step, the Design Leader guides participants in down-selecting interests that are important to them. These interests will be translated into evaluation criteria.

This step can be done individually or as a group and should be left up to the designer facilitating the session to gauge which method is necessary based on the degree of comfort with public sharing displayed by individuals in the group.

When generating evaluative criteria, the Design Leader must ensure that each criterion is framed using specific guidelines. Evaluative criteria should:

- Be a question that can be answered with a "yes" or a "no"
- Use clear language that all participants understand and agree on
- Be able to be directly applied to weighing the identified alternatives

## 4. Select Evaluative Criteria

For the fourth step, each participant should identify criteria that they consider the most important. The Design Leader should determine the number allowed based on the number available and the number of participants. The goal is to give each participant enough "votes" that there will be a significant patterning among selected criteria while not giving them so many that all criteria patterns. Generally, allowing participants to identify their 3-5 most important generates a successful number of criteria.

Similarly to Identifying Interests, this step requires a clear distinction between private and public actions. It is important that these selections are made privately and not shared until all participants have "locked in" all their choices. Doing so prevents anyone from making attempts to sway the selection based on what others are identifying.

Once the private selection is shared, all selected criteria should be listed in order of most selected to least. Any criterion not selected is removed. A target number of criteria (pre-determined by the designer facilitating the session OR collectively agreed to by participants) are identified to move forward starting with the most heavily chosen.

If only a couple criteria are clearly chosen above all the others, they are set aside to move forward and the remaining criteria can be isolated for the purposes of repeating the private and public identification process until the target number of criteria is selected.

## 5. Apply evaluative criteria

Once evaluative criteria have been generated and identified, the fifth and final step of the process is to apply the criteria to the proposed outcomes.

The evaluative criteria and the alternatives to be decided between should then be put into a decision-making matrix. A decision-making matrix is "particularly powerful where you have a number of good alternatives to choose from, and many different factors to take into account. This makes it a great technique to use in almost any important decision where there isn't a clear and obvious preferred option." [34]

One by one, the alternatives should be measured against the criteria for a "yes" or "no" answer. The questioning should either proceed across a row (one alternative measured against each criteria in turn) or down a column (one criteria measured against each alternative in turn). For every "yes" selection, the corresponding option receives one point for the corresponding criteria. For every "no" selection, the corresponding alternative receives no points for that criterion.

It is important that these selections are made privately and not shared until all participants have "locked in" all their choices. Doing so prevents anyone from making attempts to sway the selection based on what others are identifying.

Once all participants have completed all fields, participants should reveal all "yes" and "no" choices so each individual is held accountable for their choices. After everyone has

shared their individual answers and those have been compiled publicly, the numerical value should be tallied for each alternative and displayed in ranked order. This final ranked order represents the collective outcome of what each participant mutually agrees meets their most critical underlying interests.

If only one final alternative is desired, the top-ranked alternative is the final outcome. If multiple alternatives are desired, the final ones are selected starting with the top-ranked alternative and moving down in rank.

## Interest-Based Converge Variations

### Variation A: Weighted Evaluative Criteria

In addition to the basic list of identified and prioritized criteria, Weighed Evaluative Criteria can be used to strengthen the outcomes if there is any doubt that the differences in outcomes may be too subtle to agree on.

For this variation, all participants identify a small number of criteria (the number allowed will be determined by the designer facilitating the session) that they deem the most important. The same process of private identification and public sharing should be used as in the step Select Evaluative Criteria. This can be done at the conclusion of step four.

The most frequently identified criteria should then be assigned descending numerical value. The majority of criteria should be given a value of 1; the approximated top third should receive a value of 2; and only the one or two clear "winners" should receive a value of 3.

In the final tallying, each point should be multiplied by the criterion's associated weighted numerical value.

### Variation B: Negative Criteria

Negative criteria can also be employed when there are conditions that a team would NOT want an outcome to satisfy. For example: Will this alternative cost too much? This variation is useful in 3 situations: when many alternatives are being weighted, when participants generate negative criteria easier than positive, when the potential outcomes are subtle enough that participants may disagree with the outcomes.

If participants desire negative criteria, weighting must be implemented in step four. In that step, negative criteria should be assigned a value of -1, -2, or -3 in step 4 according to the severity of the criteria.

In the final tallying of numerical values, a "yes" answer is still afforded one point multiplied by the weight, but the result of that calculation will be a negative number.

Following basic mathematical rules in tallying the final outcome, a positive number increases the alternative's balance and a negative number decreases the alternative's balance.

### Variation C: Gut Check

In some groups, an additional criterion of "Does this alternative feel good" has been used to great success. This additional criterion is the primary place for participants to identify their intuitive preferences and allows for an element of the "gut-feeling" to be recognized and

validated. This variation should only be used when using weighted criteria and the "gut check" criterion should be assigned a weight of ½.

**Variation D: Pre-process Narrowing**

If a multitude of alternatives exist such that the process becomes unwieldy to complete, the Design Leader can lead the group through this variation to narrow the field of alternatives before the final iteration with only a few viable options.

For this variation, the Design Leader should guide the group through the first four steps, ending after only one round of identifying criteria. Taking the single most important criteria agreed upon, the group then measures the multitude of alternatives against this one yes/no question. Any alternatives not clearly garnering a "yes" against this criteria should be set aside.

If the number of possible alternatives is still too cumbersome, repeat this variation with the second most important criterion, then the third, and so on until a manageable number of alternatives have been identified to proceed with the process.

## CONCLUSION

Social, industry, and practical trends call for collaboration as the lynchpin to creating alignment and driving the Collaborative Design process for the sake of creating more relevant and innovative outcomes. Designers are uniquely positioned to be in roles of leadership within these collaborations. Unfortunately, while Design Leaders have many uniquely qualifying abilities, one critical skill is lacking from their Design toolbox: conflict management.

Conflict management as an area of research and development has a number of valuable tools that can be easily adapted to fit into Collaborative Design processes. Many tools and methods also exist for Design Leaders to incorporate stakeholders into their design process. [39] However, the majority of these tools function within the context of divergence and ideation and none of them incorporate conflict management tools. The Interest-Based Converge Process, fills this gap. However, areas for future research still remain.

### Long-Term Dependency

The Interest-Based Converge Process was developed so that the functionality of the toolkit and process would be transparent. This transparency allows a collaborative design team the ability to learn the process and become less dependent on the toolkit materials. Research on experiential learning might show that teams using the process over an extended time would learn the process and become independent of the toolkit. [3, 13, 20, 22] Long-term evaluation of teams using this process may exhibit the process becoming a crutch that enables the team's lack of collaborative skills development. The first scenario would be considered a successful outcome, while the second would not.

### Trust Building

Long-term use should also be examined to determine whether or not teams build an ever-

increasing sense of trust among collaborators. This evaluation could be measured by the degree to which the division between public and private action space and time is reduced with repeated use of the process over time with the same group. If this division and the amount of time required by participants before sharing publicly are reduced, it could be concluded that the process facilitates trust building between collaborators.

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