Online Collaboration Algorithms for Small Claims
Visual Blind Bidding

and other algorithms for
Intelligent Collaborative Dispute Resolution
Visual Blind Bidding

Online dispute resolution designed to empower parties to resolve disputes without going to court
Better Outcomes - Shorter Time

- Asynchronous communications
- Party controlled
- No court involvement
- Collaborative
- Timely outcomes
- Formal settlement document
Smartsettle ONE is an example of the simplest possible application of Visual Blind Bidding

How does it work?

On the surface it appears very simple

but............... 

...... under the covers are more sophisticated algorithms that work together to encourage parties to collaborate in finding an optimal outcome.
A Typical B2B Dispute

Rachel’s Rentals and Dan’s Demolition use Visual Blind Bidding to settle a business dispute
The Context

Proponent Rachel is demanding $25,000 to replace rental equipment stolen while rented to Dan. Rachel has a signed rental agreement supporting her claim. Rachel is surprised that Dan has only offered $10,000.
Respondent Dan’s Demolition rented equipment from Rachel and refused the theft insurance offered.

Dan accepts the responsibility for the loss and admits to declining the insurance coverage.

Dan has offered $10,000; he determined that was the value of the equipment lost.
The Context

Dan is a good customer and Rachel wants to settle this dispute quickly and with minimal cost.

Rachel invites Dan to use an online dispute resolution process provided by Smartsettle.

He agrees.
Onboarding

- invite and sign-up
- exchange statements of facts
- describe supporting documentation
- draft a negotiating framework
- establish preferred settlement (negotiating range)
Single Negotiating Framework

- Represents the final agreement except for blanks representing unresolved issues
- Created with collaborative discussion between the parties
- Can be facilitated using a built-in chat function or using third party video conferencing
WHEREAS: Rachel’s Equipment Rentals wishes to be reasonably compensated for the loss of industrial equipment loaned to Dan’s Demolition under rental agreement #4532-19

THEREFORE: Dan’s Demolition agrees to compensate Rachel’s Equipment Rentals between $10,000 - $25,000 for the equipment loss
Visual Blind Bidding
Replacing the Tedious Negotiation Dance

$10,000 → Negotiation Dance → $25,000
Visual Blind Bidding in action

Respondant

Claimant

104 106 108 110 112 114 116 118 120 122 124 126 128 130
Visual Blind Bidding
The Zone of Possible Agreement
(what you never know beforehand)

Dan does not want to pay any more than $21,000

Rachel is willing to accept $18,000 in compensation
Visual Blind Bidding
Online User Interface - Rachel’s View

Dan’s Secret Bid
not visible to Rachel

Compensation to be paid ($000s)

Visible

Secret Bid

End of Session 1
No Agreement
Visual Blind Bidding
Session 2 - Rachel’s View

Dan’s Secret Bid
not visible to Rachel

End of Session 2
No Agreement
Visual Blind Bidding

Session 3 - Rachel Declares Final Session

Dan’s Final Secret Bid

Rentals

Rachel’s Final Secret Bid

Agreement

Somewhere between $18K - $21K
Negotiation Summary
Overlap in Final Session

Dan’s Secret Bids
1 2 Final

Visible
1 2 3

$3K Overlap

Rentals

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Final 2 1

Rachel’s Secret Bids

Visible
Resolving the Overlap

$3,000

Split the difference?

Reward the party that holds back?
Reward Early Effort

$20K Outcome Favours Rachel

Dan’s last move ($4,000)

Overlap $3,000

Overlap resolved in ratio 4:2

$2,000

Early effort

Rachel’s last move

Rents
Scenario 2: Small Gap Impasse

What Do Parties Really Want?

- Quick settlement
- No clear loser (save face)
- Minimal external intervention

Final Secret Bid

Rentals

Smartsettle
Automatic Deal-Closer
(resolving small gap impasse)

If the parties consider the gap very small then Smartsettle will simply divide it using ‘Reward Early Effort’
Scenario 3: Large Gap Impasse

Final session ends with a large gap to resolve
Expert Neutral Deal-Closer
(resolving large gap impasse)

- Efficient
- Rewards fairness
- Avoids clear-loser outcomes
- Requires limited human intervention
Key Algorithms

The 5 Key Algorithms applied in ‘ONE’

Single Negotiating Framework (SNF)
establishes working relationships

Visual Blind Bidding (VBB)
saves valuable time

Reward Early Effort (REE)
motivates collaboration

Automatic Deal-Closer (ADC)
avoids small gap impasse

Expert Neutral Deal-Closer (END)
guarantees a collaborative outcome
Multivariate Visual Blind Bidding
Smartsettle
Infinity

Unlimited issues

Unlimited parties
Tedious issue-by-issue negotiation

100% Satisfaction

0

Separation Payment

Customs Union

Single Market

Tariffs

Resident Rights

Irish Land Border

Passport Regulations

Etc.

50% Satisfaction

0

100% Satisfaction

UK

 Algorithms?
100% Satisfaction

UK

0

0

100% Satisfaction
100% Satisfaction
John Nash Nobel Prize

Efficiency Frontier

0

100% Satisfaction

Maximize the Utility Product

Collaboration

Fair & Optimal Solution

100% Satisfaction

Nash Equilibrium

Efficiency Frontier

Traditional negotiation
Cornell Challenge - 1989
Professor D. Pete Loucks

Professionals

Maximize the Minimum Gain (uncovers hidden value)

gap

Decision Makers
Maximize the Minimum Gain

100% Satisfaction

Fair & Optimal Solution

Efficiency Frontier

Nash Equilibrium

16% gains to each party

Traditional negotiation
Maximize the Minimum Gain

100% Satisfaction

Efficiency Frontier

Fair & Optimal Solution

EXHAUSTED

Traditional network

100% Satisfaction

UK

EU flag
Early Intervention

Efficiency Frontier

Baseline

100% Satisfaction

UK

Tedious Negotiation

100% Satisfaction

Efficiency Frontier

Baseline

Tedious Negotiation
Visual Blind Bidding

Efficiency Frontier

Zone of Possible Agreement

Baseline

An Infinity Negotiation

100% Satisfaction

Fair & Optimal Solution

Minimum satisfaction

Efficiency Frontier

100% Satisfaction

UK

Satisfaction

Satisfaction
Key Algorithms

- **Single Negotiating Framework (SNF)** establishes working relationships
- **Comprehensive Preference Analysis (CPA)** establishes intelligence
- **Visual Blind Bidding (VBB)** saves valuable time
- **Reward Early Effort (REE)** motivates collaboration
- **Automatic Deal-Closer (ADC)** avoids small gap impasse
- **Fairness Enhancing Normalization (FEN)** encourages interest-based negotiation
- **Maximize the Weighted Gain (MWG)** uncovers hidden value
- **Expert Neutral Deal-Closer (END)** guarantees a collaborative outcome
To learn more about Smartsettle’s suite of powerful negotiation tools go to www.resolutioncloud.io