

Collective Dynamics & Adaptive Technologies

Profiling
Predicting
Improving...
Your Bottom-Line



Objectives

- Introduction to Adaptive Technologies (ATi) and Collective Dynamics
- Overview of ATi's capabilities and technology
- The ATi – Collective Dynamics advantage
- Next Steps

Adaptive Technologies

- Headquartered in Phoenix, AZ
 - Susan Talley--President and CEO
 - Stephen Heyl—Marketing Executive
- Founded by world renowned scientists in 2000
 - Christopher Stephens, PhD
 - Henri Waelbroeck, PhD
 - Over 30 years experience in complex systems and related fields
 - Scientific advisory board with 1999 Nobel laureate in Physics
- Launched the world's first system to use Independent Self-Monitoring Artificial Agents (ISMAA's)
- Partial ATi client list includes:
 - eXA (a division of NASDAQ)
 - Pipeline Trading Systems
 - DxCG
 - L'Oreal

Collective Dynamics

- Headquartered in Atlanta, Georgia
- Extensive experience in financial services, card products, alternative delivery systems, and payments issues
- Collective Dynamics has performed consulting and quantitative research for many leading financial services companies including:
 - Bank of America
 - CheckFree
 - MasterCard
 - US Bank, and many others

Why our solution?

- **ATi** was created specifically to help businesses with large amounts of data across many databases solve complex and dynamic problems
 - Our technology handles and analyzes vast amounts of data (such as transactional data and from multiple sources) in “real time”
 - We have demonstrated successes in a number of different industries
- Collective Dynamics focuses on the financial services and payments industry
- We have teamed up to provide our clients with best in class solutions to complex business problems in the financial industry

Why is ATi better?

- ATi uses thousands of proprietary algorithms (Individual Self-Monitoring Artificial Agents) to analyze your data from many perspectives...not just one.
 - *Imagine having thousands of analysts continually working to understand your data!*
- ATi's evolutionary search process analyzes the millions of potential combinations of variables in your data to truly understand your customers.
 - *For example, if you had 20 data points with 5 potential responses for each one, there are an incredible **3.2 million** unique combinations.*
- Each of these agents gives you the probability that they are right, clearly tells you why they are predictive and then provides a “consensus” solution.
 - *You get 1 solution, but you also know about ALL of the key alternatives, too!*
- Results are “pushed to your computer” in exactly the format you want.
 - *No more “digging” to understand what to do with the results!*
- As you add data, the system learns and improves in “real time”. Your results quickly get better and better!

Why is ATi better?

- ATi IS the better “mousetrap”!

ATi	Competitors
•Uses <u>ALL</u> available data	•Use less than 2% of available data
•Profiles from multi-perspectives	•Typically one, or a few, “best practice” approaches
•Predicts using thousands of agents and identifies a consensus view	•Result is based on single model
•Continuously learns and automatically updates profiles and predictions	•Periodically update (if resources are available)

Insurance Industry Results

- **Objective:** Improve the prediction of the customers most likely to purchase an additional policy
- **Results:** ATi outperformed typical insurance industry techniques by 26%.
 - In addition, ATi was able to also significantly reduce “false positives”!

Area	Typical Current Best Practices Results	ATi Results	Improvement
% Policy purchasers correctly identified	11.9%	15.0%	26.0%
% False Positives	88.1%	75.0%	14.9%

Healthcare Industry Results

- **Objectives:** Identify high cost customers/decrease expenses associated with poor targeting.
- **Results:** ATi outperformed DxCG, a recognized industry best performer, by more than 66%

Area	Then Current Best Practices Results	ATi Results	Improvement
% High Cost Patients Identified	18.2%	30.2%	66.0%
% False Positives	81.8%	69.8%	14.7%

Profiling

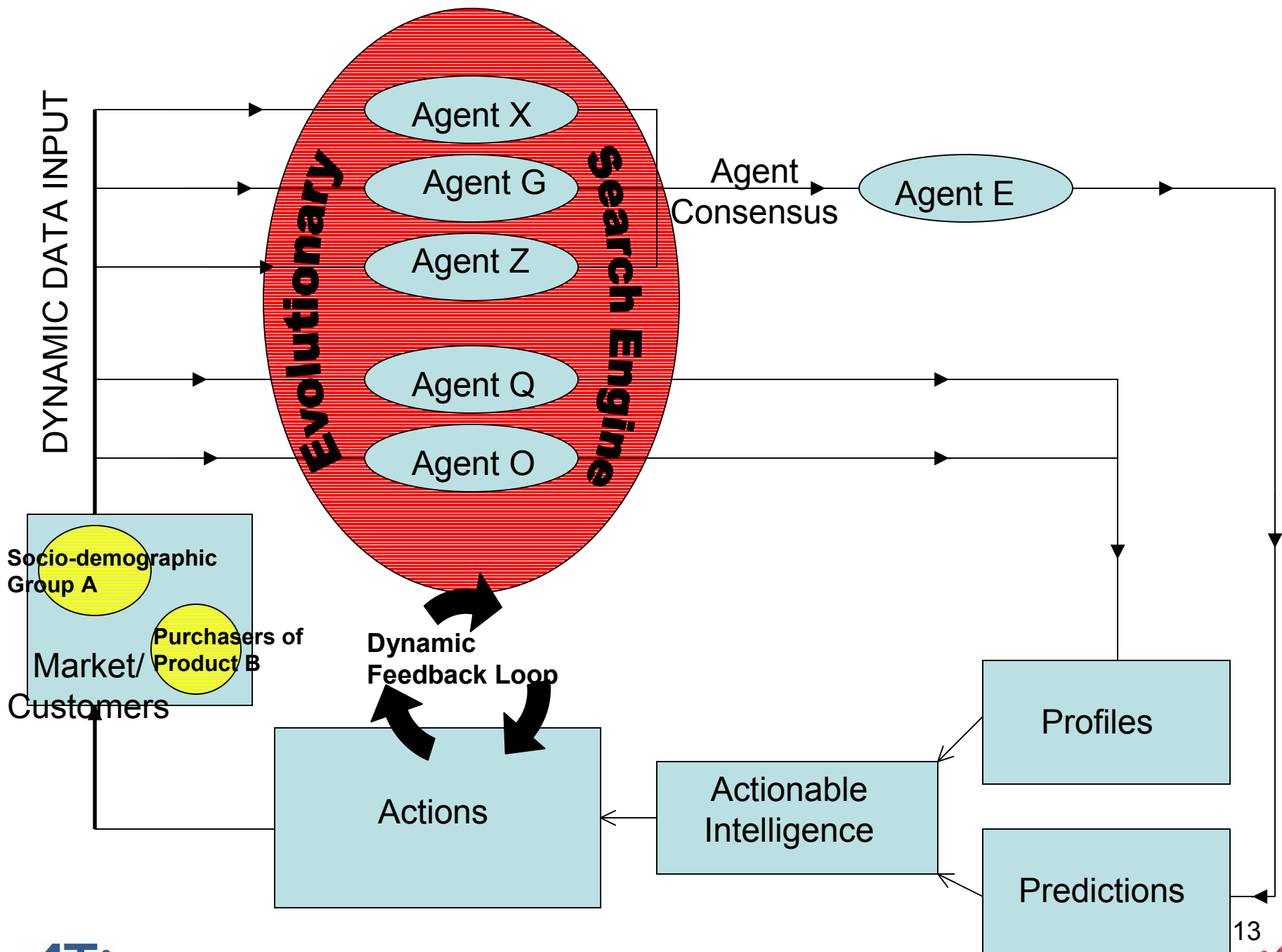
- ATi's technology creates robust profiles utilizing the identified drivers
 - Uses **ALL** your data variables, not a small sub-segment
 - Lets the data tell the story, rather than humans imposing predispositions on the data
 - Outputs are reviewed by humans to ensure actionability
 - Updated as additional data is collected on your customers
 - Can integrate multiple data sources

Predicting

- Delivers predictions specific to the identified business problem(s)
 - Each prediction is accompanied with a probability of correctness
 - Transparent with associated drivers
 - You know why a certain recommendation was made
 - Allows for human interpretability and feedback

Outputs

- Provides results based on the most predictive models out of the thousands evaluated
 - Ensures models are the best using all of your current data at the moment
 - Identifies many models not just one best solution
- Likelihood of each predicted outcome defined
 - Your look into the future will have a series of future outcomes, each with its own probability
- Direction is determined through consensus
 - Much like a round table of experts looking at a problem, rather than a majority vote



Reporting

- GUI reporting is tailored to your needs.
 - Results are formatted to be easily understood.
 - The results are “pushed” to the user’s computer.
- The results are dynamic and provided in “real time”.
 - The results are updated continuously as your data is updated.
 - The model can be expanded without starting over.

The ATi Difference

-- Now See Over The Horizon



AT's Value Added

- Customized to your problem
- Utilization of ALL your data
- Profiling from MANY points of view
- Prediction based on MANY ISMAAs with consensus
- Outputs are easily understood
- System is dynamic
- Model can be expanded
- GUI platform is tailored to your needs

Benefits

- No more cookie-cutter solutions...the results are unique and relevant to you and your business success!
- Most companies use less than 2% of their data to make decisions
- Provides more accurate predictions
- Similar to many experts at a table coming to consensus on an issue
- Key drivers let you know why and act accordingly
- Updates as your customer data is updated
- Don't have to "start over"
- 24/7 desktop access to results based on the latest data and agent analyses

The ATi / CD Team – Working Together for You



Collective Dynamics

- Helps precisely define your problem/opportunity utilizing industry knowledge
- Works with you and your staff to provide timely results
- Works with ATi to maximize the use of all data provided
- Presents the results clearly and addresses your problem/opportunity
- Provides informed, specific next steps
- Works with you to insure maximum ROI after the presentation

Adaptive Technologies

- Works with you and Collective Dynamics to insure your problem/opportunity will be addressed
- Works with you and your staff to resolve any data issues
- Works with Collective Dynamics to fully utilize the data provided
- Works with Collective Dynamics to insure correct interpretation of the results

Financial Services Opportunities

- Use of ATi technology has the potential to improve a bank's profitability in several areas:
 - New customer acquisition
 - Cross sell/up-sell
 - Customer retention
 - Risk management
 - Collections
 - Etc.

Improving Acquisitions

- Improve the customer acquisition process through better modeling/prediction of:
 - Right offer to the right customer
 - Prospects likely to respond
 - Applicants likely to be approved
 - Account profitability
 - Prospects likely to stay

Improving Cross-Sell/Upsell

- Knowlagent research has demonstrated that offering the right product early in the sales process has dramatic impact on success:
 - The right product as the first offering has a 60% chance of success
 - The right product as the second offering only has a 30% chance of success
 - This drops to 10% as the third offering
- ATi technology can dramatically improve the potential to offer the right product to the right prospect

Product/Service Offering

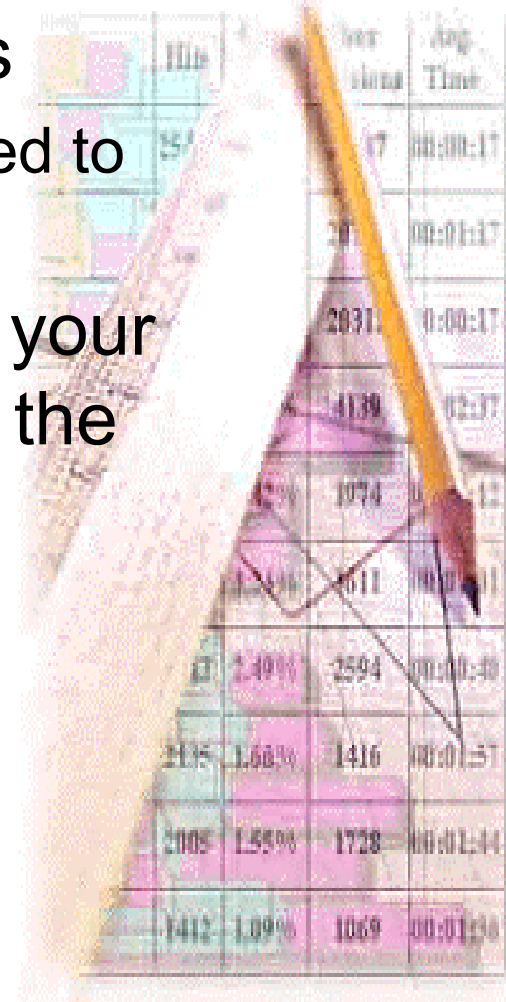
- Included in the product package are the following:
 - Consultation services needed to define project scope as well as maximize product use
 - Data analysis
 - Model creation
 - Real time access to results for the next year
 - Updated as your data is updated

Put the ATi/CD Team to the Test

- Define the test
- ATi will analyze your data and conduct the test
- CD will present the results and recommendations
- Compare the results to your current benchmarks
- We will reduce your financial risk
 - If we don't outperform your current benchmark, you will receive a full refund

Summary

- Focus on “your” business issues
 - The model and output is customized to your business objectives
- ATi’s predictive capabilities turn your data into an actionable look into the future
- CD’s experience will provide actionable next steps



Next Steps

- Let us prove that the analytic power of Adaptive Technologies teamed up with the financial services experience of Collective Dynamics can improve YOUR bottom line!
- Call or e-mail Collective Dynamics
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