

IPC Integrated Food Security Phase Classification

Evidence and Standards for Better Food Security and Nutrition Decisions

Recommendations and Implications from IPC ATARI Initiative

IPC Global Partners



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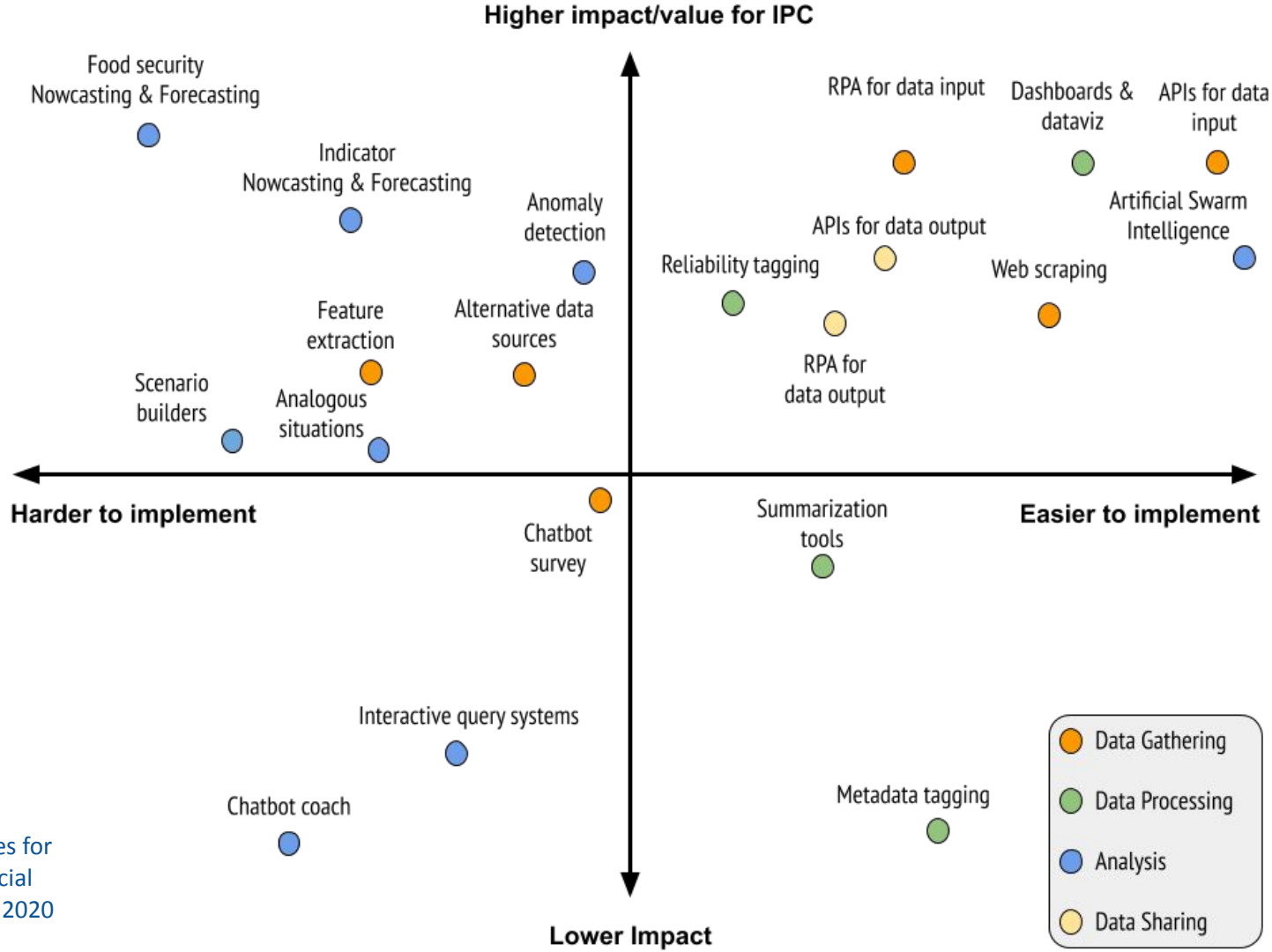


Key Challenges & Focus

- ❑ Ten Specific Challenges Identified
- ❑ Priority Challenges for ATARI
 - **Data Management:** Data gathering, processing, and sharing
 - **Analysis:** Improving analysis and classification process in terms of consensus building, efficiency, time and human resources required, quality, scalability, frequency etc.

Findings

Technology Opportunities for Data Management and Analyses



General

- A. Urgent need to integrate advanced technologies and artificial intelligence into the IPC
- B. Technology innovations need to be accompanied by innovations in processes and protocols

Technology

1. Immediately invest in technologies that are high value and ease of implementation.
2. Consider development of technologies with high value but more complex to implement.
3. Integrating ATARI requires a certain level of financial investment that needs to be estimated and committed.
4. ATARI strategy should complement existing efforts from partner agencies - and vice-versa
5. Focus on technologies and innovations have a broad spectrum of application in IPC processes
6. Invest in prototyping and piloting further technologies to enable a Global Forecasting System for increased frequency and coverage

Artificial Swarm Intelligence

PILOTS FOR INCREASED FREQUENCY AND COVERAGE OF IPC CLASSIFICATIONS

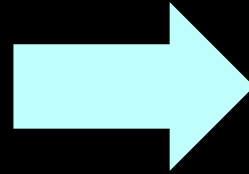
WHAT IS SWARM AI?

Human Intelligence

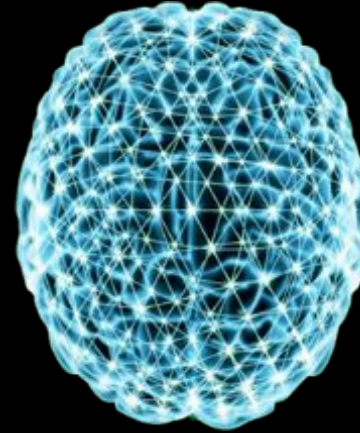
- Knowledge
- Wisdom
- Insights
- Intuition
- Experience



Networked
Human Groups



Swarm Intelligence
Algorithms



Artificial
"Super-Experts"

More Accurate

- Predictions
- Decisions
- Evaluations
- Forecasts
- Diagnoses

Similar to the Super Intelligence demonstrated by Natural Swarms, Swarm AI isn't fed by "Big Data." By Networking Real People in Real Time, we bring AI to the Data that Lives in the Human Database.

WE BRING AI TO THE HUMAN DATABASE

TRADITIONAL AI



Big Data



Machine Learning



Actionable Intelligence

UNANIMOUS AI



Human
Knowledge



Swarm AI



Actionable Intelligence

SWARM INSIGHT

EXAMPLE:

CLIENT: **TechCrunch**

PRODUCT: Self-Driving Cars

Q: **What benefit will drive adoption?**



SWARM: **134 CONSUMERS**



IPC Pilots of ASI--Introduction & Methods

Prototypes and testing of various aspects, including:

Built around 5 research questions addressed by complementary methods

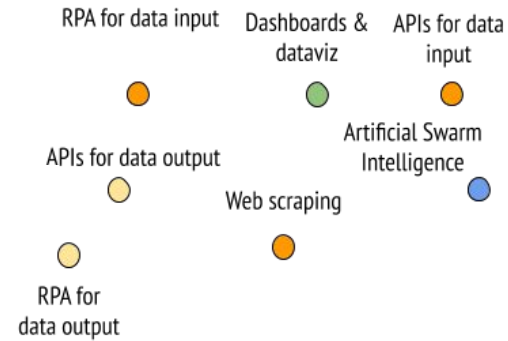
- ❑ **Technologies**
 - Artificial Swarm Intelligence (ASI)
 - Simplified Information Support System (ISS)
- ❑ **Analytical Procedures**
 - Unit of Analyses
 - Period of Analyses
 - Swarm Formation
 - Discovery, Debate and Decision Process
- ❑ **Tools**
 - Dashboards
 - Summarization

Question A	Question B	Question C	Question D	Question E
<i>Does a group reach similar classification results with traditional vetting and ASI?</i>	<i>Do two independent groups come to similar classification results using ASI?</i>	<i>Do two independent groups come to similar classification results with traditional vetting and ASI ?</i>	<i>How does ASI classification compare to other available forecasts?</i>	<i>What are participants' perceptions?</i>
TWG v3 consensus & TWG Swarm	TWG Swarm & Global/Reg. Swarm	TWG v3 consensus & Global/Reg.Swarm	All Swarms & Other food security information	Feedback from participants and review

- ❑ **Three pilots**
 - Haiti
 - Malawi & South Africa
- ❑ **Swarms (10-50 people)**
 - TWG
 - Global/Regional
- ❑ **Swarm Process (~12 hrs)**
 - On-boarding
 - Review evidence (self study)
 - Discussion, Debate & Decision (includes review of ISS, plenary and ASI)

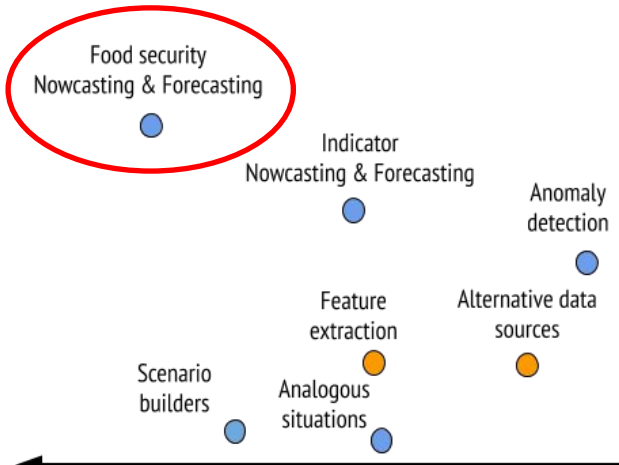
Next Steps

1. Integrate technologies that are easy and have a high value in the Information Support System version 2 (ISS v2)



2. Build ISS for modelling with artificial intelligence

- Bring various data sources together
- Develop models for food security nowcasting and forecasting



IPC

Integrated Food Security
Phase Classification



Thank You!

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