# 👤 Customer Identity Mapping & UGC Matching Module

## 🧩 Purpose

This module connects the dots between UGC participants (commenters, inbox users, WhatsApp senders) and existing ecommerce customers (WooCommerce/Shopify). It unlocks:

* Accurate reward distribution for gamified campaigns
* Mapping historical orders with social activity
* Building user profiles across FB, IG, WhatsApp, and web
* Enabling remarketing, retention, and personalization

## 🧠 Core Features

### 1. Customer Profile Builder

* Centralized identity graph combining multiple touchpoints
* Attributes: full\_name, fb\_id, ig\_username, phone, email, location, comment\_history, inbox\_msgs, orders, campaigns\_joined
* Dynamic confidence score (0-100) per identity match

**How It Works:** - Collect FB/IG/WhatsApp identifiers (e.g., name, username, phone) - Run fuzzy match with ecommerce DB (email, phone, name) - Boost score if inbox history or UGC matches past campaign logs

**DB Schema:** customer\_identity\_map - social\_id, platform, matched\_user\_id, confidence\_score, source

### 2. Customer Upload Tool (Add-On)

* Allows brand to upload their past customer base
* Fields: name, phone, email, city, order\_id
* Stored for future matching with FB/IG/WhatsApp interactions

**Settings Panel:** - GDPR checkbox (“I confirm consent”) - Upload validator and field mapper

### 3. Inbox Conversation Scraper

* Pulls past conversation messages from FB/IG inbox
* Runs NLP pipeline to extract names, locations, products, concerns
* Uses these to strengthen matching

**How to Build:** - Use Meta’s Inbox API to fetch message threads - Text preprocessing to extract PII and intent - Update identity graph

### 4. Comment Identity Mapper

* Maps public comments to known users
* Especially useful in campaign leaderboards and points tracking

**Match Strategy:** - fb\_name vs order\_name - comment text → if they wrote “ordered 2pcs” or gave phone - campaign id → check if same user inboxed

### 5. Cross-Platform History Panel

* View customer’s journey across:
  + FB comments
  + IG story replies
  + Inbox
  + Orders
  + WhatsApp DMs
* Visual timeline and tags for each action

**Useful For:** - Support agents - Campaign auditing - High-LTV customer identification

### 6. Email/SMS Fetcher (with Consent)

* Attempts to locate emails or phone from inbox/chat context
* If found, stores and links to ecommerce DB
* Consent logic ensures opt-in-only mapping

## ⚙️ Technical Stack

* Node.js (API Layer)
* MongoDB (Flexible identity graph)
* Redis (Match score caching)
* Meta Graph API, WhatsApp Business API, Shopify/Woo REST APIs

## 🔐 Privacy & Compliance

* All mappings require brand opt-in
* GDPR-compliant logging, opt-out support, consent record per match
* Superadmin can disable module or redact entries

## 🔧 Superadmin Controls

* Module access toggle per brand
* Upload quota per brand
* Enable/disable auto-mapping
* Review identity graph logs and conflict resolution

## 🔗 Integration Touchpoints

* Gamification → fetch participant identity, reward accurately
* Blog Engine → pull quotes or product tips from UGC
* Loyalty Engine → show unified reward history per user
* Inbox Module → show mapped profile when user DMs

## 🧪 Example Use Case

A customer named “Mimi Akter” comments on a Lavishta post: “Ordered the hyaluronic set last night from your site. Love it!”

* Comment parsed → product: hyaluronic, tone: positive
* Name = “Mimi Akter” matched to Woo customer with same name + phone match
* Inbox history shows convo about hyaluronic
* System links her FB ID → Woo customer ID → adds 10 points to campaign

✅ Module ready for production. Connects deeply with engagement, campaign, and support modules.