

Hau

A student exchange platform that turns second-hand items into new social connections.

Students in UK commercial accommodation often feel isolated and alone.

Inspired by Anthropologist Mauss's discovery of 'Hau', that the social bond can be created through reciprocal exchanges, the project uses the need to exchange unwanted items as a social anchor to help residents build friendships.

Blending a digital platform with shared spaces, Hau turns item exchange and group activities into repeated, low-pressure opportunities for lasting connections.

Service Design | UI/ UX Design | AI-Powered

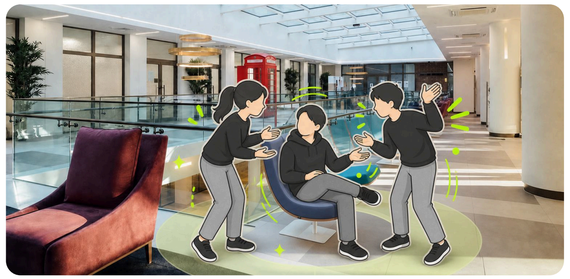
Individual Project

Background

Personal Experience

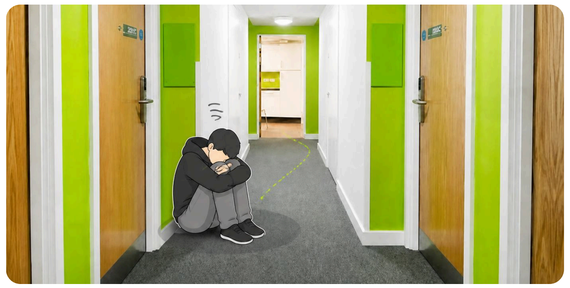
When I moved into a commercial student accommodation as an undergraduate in the UK, I immediately felt a difference from living in university halls.

In the university halls, there was a stronger sense of community, and everyday interactions with other students happened naturally.



In contrast, the commercial accommodation felt much more isolated.

I rarely knew who lived next to me. Although I was constantly surrounded by other students, I often felt alone.



Issue & Probelm

A 2025 study by Accommodation For Students surveyed over 300 students from 99 UK universities, regarding housing satisfaction.

Living at home	8.4/ 10
University halls	7.6/ 10
Private student halls	6.4/ 10

Students in privately operated student accommodation reported the lowest satisfaction, with **a lack of community** being one of their main complaints.

Research

Participant Observation

Participant observation is an anthropological research method in which researchers immerse themselves in a community while observing and participating in everyday life.

As a resident of both a university hall and a commercial student accommodation, I conducted one year of participant observation in each setting, engaging in everyday life to analyse and systematically reflect on residential experiences.



	Conventional University Hall	Commercial Student Housing
Student Identity	• Residents from a same university • Shared identity and experience • Arrive with existing connections	• Residents from different universities • Various identities and experience • Lack of previous connections
Shared Spaces	• Residents personalise shared spaces • Flexible for different activities • Spaces feel collectively owned	• Personal items are quickly removed • Fixed functions of spaces • Spaces are professionally managed
Service Style	• Staff know residents personally • Small events happen frequently • Warmer and cosier	• Professional and standard staff • Fewer events and profit-driven • More modern and impersonal

User Research

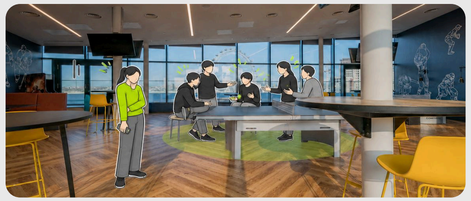
Persona | Interview

During the period of my participant observation, I also interviewed 3 student residents living in UK commercial student halls.



Lin
Age: 18
1st-year undergraduate student

"I enjoy socialising and attend most of the events in my accommodation. However, it's **hard to find people with shared hobbies**, and the **conversations rarely continue** afterwards."



Sense of Belonging

3/ 5



Samuel
Age: 22
Postgraduate student

"I'm under a lot of **academic pressure**, but I'd also like to meet more people; unfortunately, the social activities at my flat take up **too much of my time** at the moment."



Sense of Belonging

1/ 5



Freya
Age: 20
Undergraduate student

"I'm too **shy** to initiate conversations, it would be better if I could have an **excuse** to chat with people **naturally**."



Sense of Belonging

2/ 5

Discover

Commercial student housing provides modern facilities, but **interactions remain limited**.

Organised events often feel formal, inconvenient or unrelated to students' interests, while shared spaces are mostly used alone or with existing friends.

Interactions remained infrequent, and opportunities for **spontaneous and low-pressure communication were limited**.

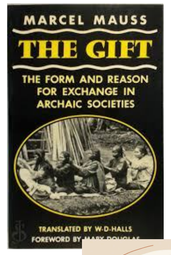
Moreover, **residents also need mutual support, shared resources, and opportunities to develop their interests**.

Anthropological Perspective

Anthropologists have been studying about 'reciprocity' for a long time, and found that reciprocal exchanges can create stronger social connections.

In ***The Gift***, Marcel Mauss described the cycle of giving, receiving and reciprocating.
He argued that a the exchanged item carries a social relationship with it and creates a reason for future interaction.

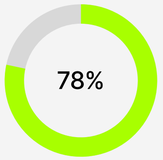
Drawing on a Māori account, Mauss interpreted 'Hau' - the spirit of the gift - as the continuing force that connects a gift to its source.



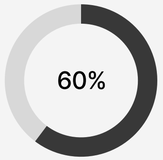


Survey Findings

The questionnaire collected responses from 50 students living in 4 commercial student accommodations across London.

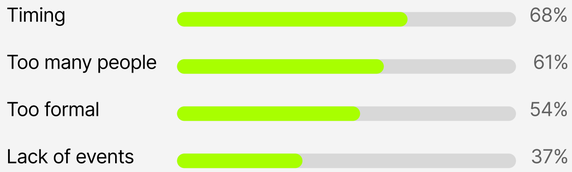


Want to meet more people

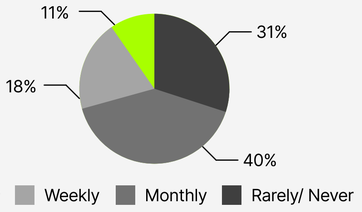


Feel alone living in private halls

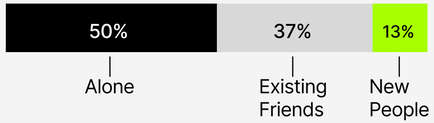
What stops you from socialising?



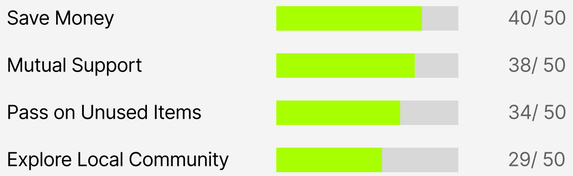
How often are shared facilities used?



Who to use the shared spaces with?



Students also need



Word Cloud of students' interests



Insight

Problem — Residents in UK commercial halls feel isolated.

Medium — Students' needs and interests

Solution — A service system that fosters natural interaction through exchanging unused items.

Product Research

Competitor Analysis

I compared **social, niche-community, and second-hand trading** products to understand how how each supports connection, community, and exchange.

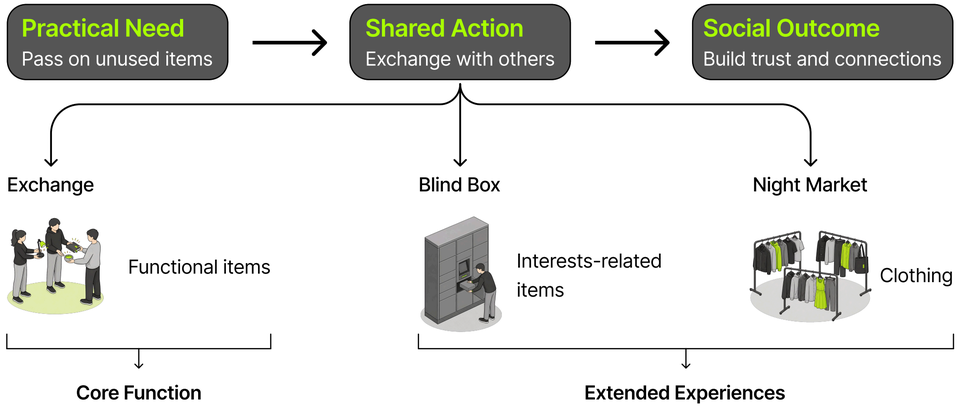
	Tinder	Qiandao / POP MART	ebay
Function	Users browse profiles, express interest and chat after a mutual match.	Trending GENZ interests, where users discover collectibles and share their interests.	Users buy and sell second-hand items through listings, bidding, and direct purchases.
Strengths	• Fast match discovery • Mutual consent before conversation • Low-pressure connection initiation	• Shared interests • Niche-community • Playful and emotional	• Credit system and supervision • Fair price and trading process • Clear item listings
Opportunity Gaps	• Mostly one-to-one interaction • Appearance-first matching • High security risk	• Fewer opportunities for social discovery • Consumption-driven participation	• Limited social connection • Money-based transaction

Applied Insights

- Low Pressure
- Mutuality
- Group Interaction
- Safety
- Interests
- Playful
- Offline+Online
- Connection
- Supervision
- Fairness
- Reciprocal
- Social Discovery

Initial Concept

A service system that helps relationships form naturally through item exchange. Match Online, Interact Offline.



Concerns & Solutions

User Concerns	Our Solutions
Online	
Unwanted Matches	A match is only successful if everyone agrees.
Privacy Concerns	Users can choose to not share contacts with others.
Offline	
Safety	Only residents can register, all interactions happen in public spaces.
Broken Commitments	The credit system as a disciplinary measure.

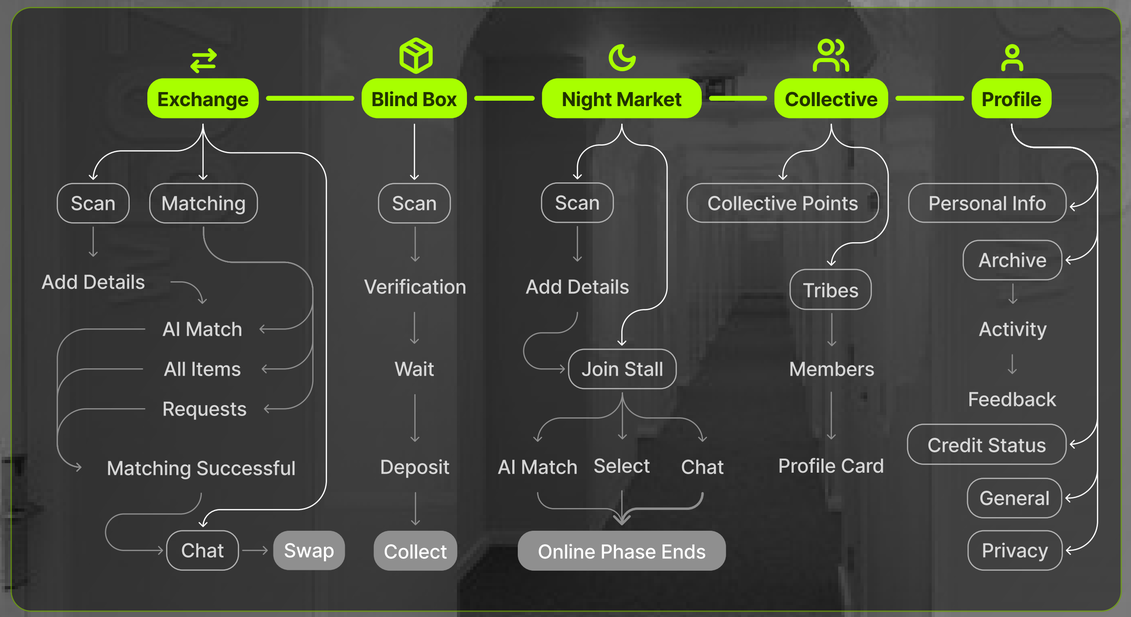
Mission & Vision

A unused-item exchange ecosystem that transforms unwanted items into meaningful connections, helping students reduce waste and feel a stronger sense of belonging.

This system is inspired by the reciprocal relationship, hence is named after **'Hau'**.

Interaction Structure

APP User Flow



UI Wireframe



Service Blueprint

Feature	Exchange	Blind Box	Night Market	Collective	Profile
User Actions — Online	Scan → Upload → Chat → Match	Scan → Wait	Scan → Upload → Join A Stall	Track → Connect	Manage → Report
Student Residents — Offline	→ Swap	→ Collect → Deposit	→ Set Up → Trade	Enjoy Rewards	
Line of Interaction					
Frontstage — App Interface	Displays Scan and Matching processes	Displays Scan and QR Code	Displays Scan and Available Stalls	Displays Collective Points and Tribes	Displays Settings and Activity Histories
Frontstage — Accommodation Common Area	Provides Swap Spaces and NFC Checkpoint		Provides Space for Stalls and Trade with Shops	Provides Space for Community Reward Events	
Frontstage — Amazon Locker or Post Room		Provides Blind Box Drop-Off and Pick-Up			
Line of Visibility					
Backstage — Online	Recognition and Matching Actions, Record Updates			Automatic Match, Progress Updates	Feedback Review
Backstage — Offline	Safety Tracking	Random Grouping, Queue Updates	Venue Coordination and Booking	Event Organisation	
Line of Internality					
Support Process — Online	AI Algorithm				Platform Staff
Support Process — Offline	NFC System	Amazon Lockers or Post Room System	Local Vintage Shop Network	Student Ambassadors	

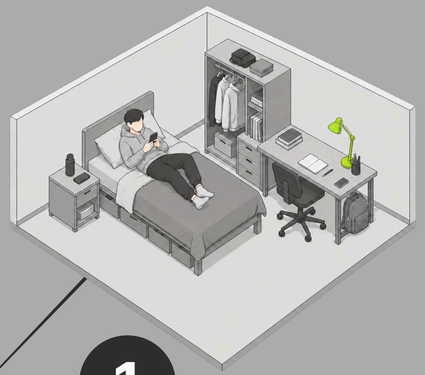
Value Ecosystem

- **Local Shops** — More clothing supply, New customers
- **Student Residents** — Build connections, Save money
- **Apartment Operators** — Greater promotion, Higher satisfaction
- **Community** — Stronger solidarity, More sustainable
- **Student Ambassadors** — Gain experience, Get certificate
- **Hau Platform** — User growth, B2B revenue
- **Apartment Staff** — No extra work, Easier management
- **Locker Partner** — Expand locker use, More users

Service System Map

- Overview
- APP Use
- How AI is integrated

A connected service journey combining digital coordination and physical interaction to build trust, participation and belonging among student residents.
It transforms everyday item exchange into opportunities for social connection



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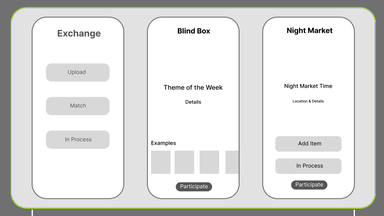
- Residents of commercial student accommodation in the UK often feel isolated. Users engage with this online-to-offline service, which uses unused-item exchange as a social anchor to foster connection.
- The HAU app is the system's online platform, centred on Exchange, with Blind Box and Night Market adding more engaging ways to participate.

App

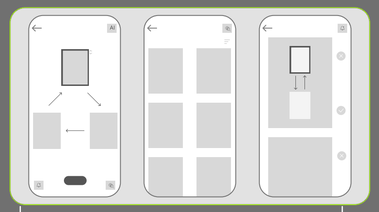


Three key features



2

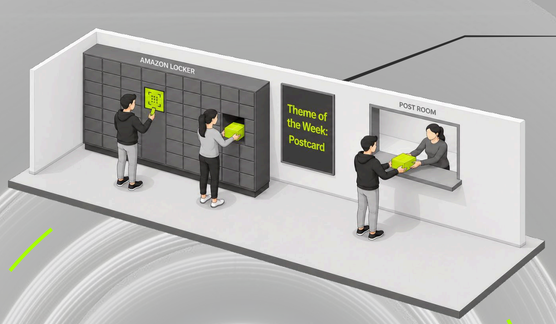
- ***Exchange***
  Users complete the exchange in their accommodation's designated common areas, creating opportunities for connection while ensuring safety.
- In the app, users first match with and filter potential exchange partners, then arrange a convenient time for everyone through the group chat before meeting in person.
- AI automatically categorises items and matches users with potential exchange partners based on their preferences.



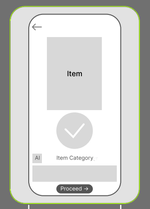
Find AI matched partners;
Browse all items;
Review match requests.



→ Chat and coordinate



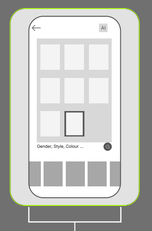
- ***Blind Box***
  Each biweekly theme allows one entry per person: users leave their own for the next resident, then collect the previous participant's box from the Amazon Locker or Post Room. It helps create engaging and interesting encounters.
- In the app, users upload an item and join the queue.
- AI checks whether the uploaded item matches the theme.



Verified as matching the theme



- ***Night Market***
  Allows local vintage shops exchange store vouchers for residents' unwanted items. Wider community involvement helps overcome size variations that limit exchanges within student accommodation. This collaborative feature helps build trust and solidarity among residents.
- In the app, users upload items, then coordinate with one another to join or switch stalls based on styles preselected by participating shops.
- AI recommends the best-matched stall.



Select and join a stall, or matched by AI.



3

- Through the service system, student residents gradually connect with more like-minded people and build more trust, feeling less isolated.
- In the app, users can view the community's cumulative participation and explore tribes built around shared interests.
- Using past data, AI groups users with potentially shared interests or tastes into small communities called Tribes.



Collective progress visualisation & Interest tribes

Outcome

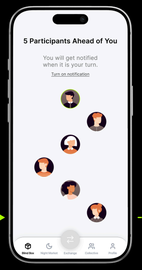
High-Fi



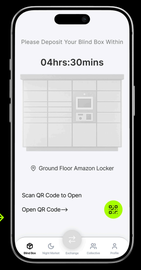
Blind Box



Uploaded item is AI-verified against the week theme.

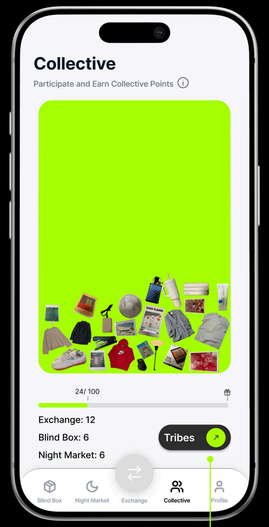


User joins the queue due to limited storage capacity.



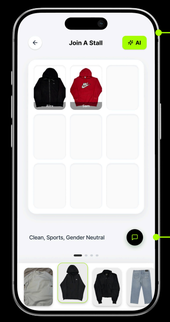
Follow the guidance to deposit/ collect items.

Collective



Every item contributes to a collective progress visual, unlocking rewards at milestones.

Night Market



Click to automatically match a stall.

Join stall chat to coordinate.

Drag 'your' clothing into/ out a stall to join/ remove from it.

Exchange



AI forms 2,3 or 4 user groups based on item categories and preferences to maximise successful matches.



User can browse all available items or review received match requests.

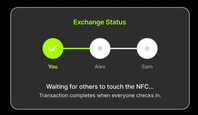




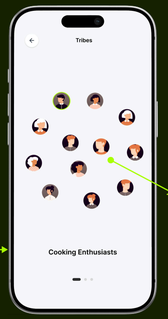
Swipe Left/ Right to view more groups

Chat and coordinate after matched.



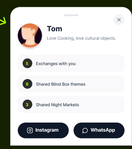


Once everyone touches the NFC, the swap is completed.



Find like-minded friends based on activity data.

Click the avatar to view more.



Vibe Coding Process

The frontend interactions were built using vibe coding.

Initial high-fidelity UI in Figma Make → Refined in Figma Design → Front-end interactions built with Codex

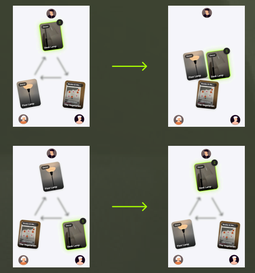
Inaccurate AI Item Recognition

Replaced generic local classifiers with Gemini Vision. A cropped image and constrained prompt improved item naming and mapped results to a fixed category library.



Unclear AI Match Exchange Animation

Rebuilt the animation with controlled direction and speed. It plays once when a match group enters view, then returns each card along the same path.



Blind Box-Low Verification Pass Rate

Replaced direct similarity scoring with feature-based verification. The AI assessed shape, material, theme cues and contradictions before calculating the final score.

```
score_fields = ["formScore", "materialScore", "themeCueScore", "contradictionScore"]
scores = [result.get(field) for field in score_fields]
if (
    result.get("category") not in CATEGORIES
    or not str(result.get("name", "")).strip()
    or any(not isinstance(score, int) or score < 0 or score > 100 for score in scores)
):
    raise ValueError("Gemini returned an invalid theme verification result")
form_score, material_score, cue_score, contradiction_score = scores
weighted_score = round(
    form_score * 0.45
    + material_score * 0.30
    + cue_score * 0.25
    - contradiction_score * 0.45
)
result["themeScore"] = min(max(weighted_score, 0), 100)
```

API-Based Stall Matching Was Slow and Costly

Reuse user-entered attributes with a small local semantic vocabulary. Weighted scoring compared each item with every stall and recommended the highest-scoring match.

```
function findBestJoinStall(item) {
  const details = item?.details || {};
  const weightedFields = [
    [details.style, 5],
    [details.category, 4],
    [details.gender, 4],
    [details.material, 1.5],
    [details.notes, 1],
    [details.brand, 1],
  ].filter(([value]) => String(value || "").trim());
  if (!weightedFields.length) return null;

  const ranked = joinStalls.map((stall, stallIndex) => {
    const stallTerms = joinMatchTerms( ${stall.tags} ${stall.matchTerms || ""} );
    let score = 0;
    const reasons = new Set();
    for (const [value, weight] of weightedFields) {
      const itemTerms = joinMatchTerms(value);
      const overlaps = [...itemTerms].filter((term) => stallTerms.has(term));
      if (overlaps.length) {
        score += weight * Math.min(overlaps.length, 2);
        overlaps.forEach((term) => reasons.add(term));
      }
    }
    return { stallIndex, score, reasons: [...reasons] };
  }).sort((a, b) => b.score - a.score || a.stallIndex - b.stallIndex);

  return ranked[0]?.score >= 4 ? ranked[0] : null;
```

Service Scenarios & Feedback



Exchange

The item as a social anchor made the first interaction feel natural rather than forced.

Feedback

Users want a clear deadline to complete and confirm each exchange.

Blind Box

The surprise format felt playful and less socially demanding.

Feedback

Users ask for clearer queue progress, collection deadlines and locker instructions.





Night Market

Working together on a stall helped participants bond and get to know one another.

Feedback

Users want clearer roles within each stall, and more visibility around partner rewards.

Design Refelction

Commercial student accommodation often treats community as something that can be provided through shared facilities and scheduled events. Yet bringing diverse residents into the same building does not automatically create common ground, while formal activities often produce only brief encounters without continuity. The issue is therefore not a lack of willingness to connect, but **a gap between providing communal space and enabling social relationships to form**. If proximity, amenities and organised events are not enough, **how might community be cultivated through everyday life itself?**

Hau responds by using the everyday need to pass on unwanted items as a social anchor. Objects become a form of indirect communication: they reveal interests and needs, create mutual value and give strangers a shared purpose before conversation is required. As exchanges recur, common interests become visible, recognition can develop into trust, and trust into cooperation. Rather than delivering community as another programmed amenity, **Hau creates a framework through which residents can gradually build it themselves.**

Future Directions

INTERGENERATIONAL EXCHANGE
Connecting departing residents, newcomers and alumni through passed-on objects.

BEYOND STUDENT HOUSING
Expanding into universities, neighbourhoods and wider society.

FROM OBJECTS TO KNOWLEDGE
Extending exchange to skills, advice and mutual support.

