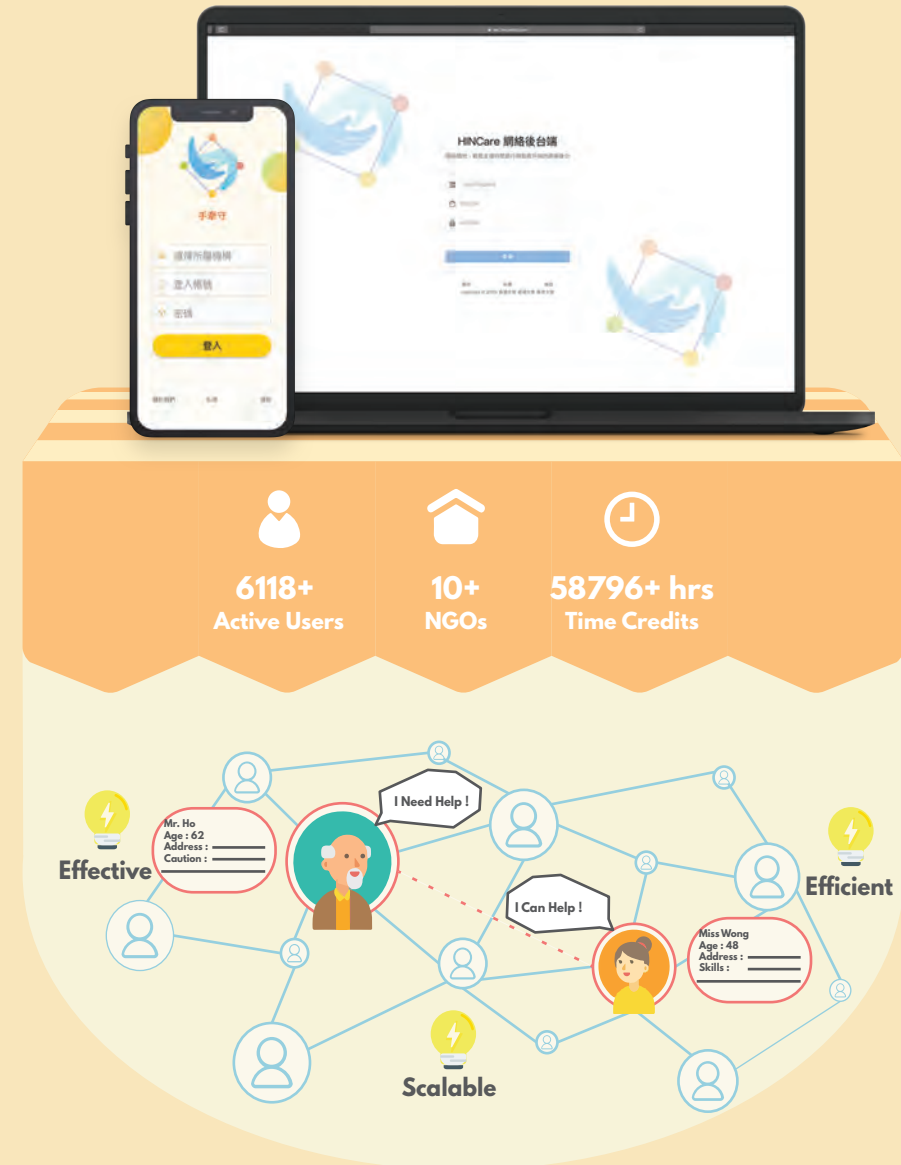# HINCare: An Intelligent Timebanking System for Elderly Care

In Hong Kong, the number of elderly citizens is estimated to rise to one third of the population, or 2.37 million, in year 2037. As they age and become more frail, the demand for formal support services (e.g., providing domestic or escort services) will increase significantly in the coming years. However, there is a severe lack of manpower to meet these needs. Some elderly-care homes reported a 70% shortage of employees. There is thus a strong need of voluntary or part-time helpers for taking care of elders.

We introduce HINCare, an app that encourages mutual-help in the community. HIN Care adopts the concept of timebanking, where each user has his/her own account to store the amount of time ('"time credits") that she has provided service. The user can use the time credits to purchase other services. Moreover, HINCare uses the HIN (Heterogeneous Information Network) to recommend helpers to elders or other service recipients. HIN is a large network database that stores the relationship information among elders, helpers, and NGOs. We use the HIN to find which helpers are the best candidates to assist elders. The algorithms that use HINs and AI technologies for matching elders and helpers are based on our recent research results. This is the first time that HIN is used to support elderly care.

6118+ Active Users

10+ NGOs

58796+ hrs Time Credits

Effective

Efficient

Scalable

I Need Help !

I Can Help !

Mr. Ho
Age : 62
Address :
Caution :

Miss Wong
Age : 48
Address :
Skills :

HINCare Mobile App
Tailored Design for Elders

Requst Voluntary Service

Become a Volunteer

Time Credit Account Review

Reward Redemption

Download on the App Store

GET IT ON Google Play
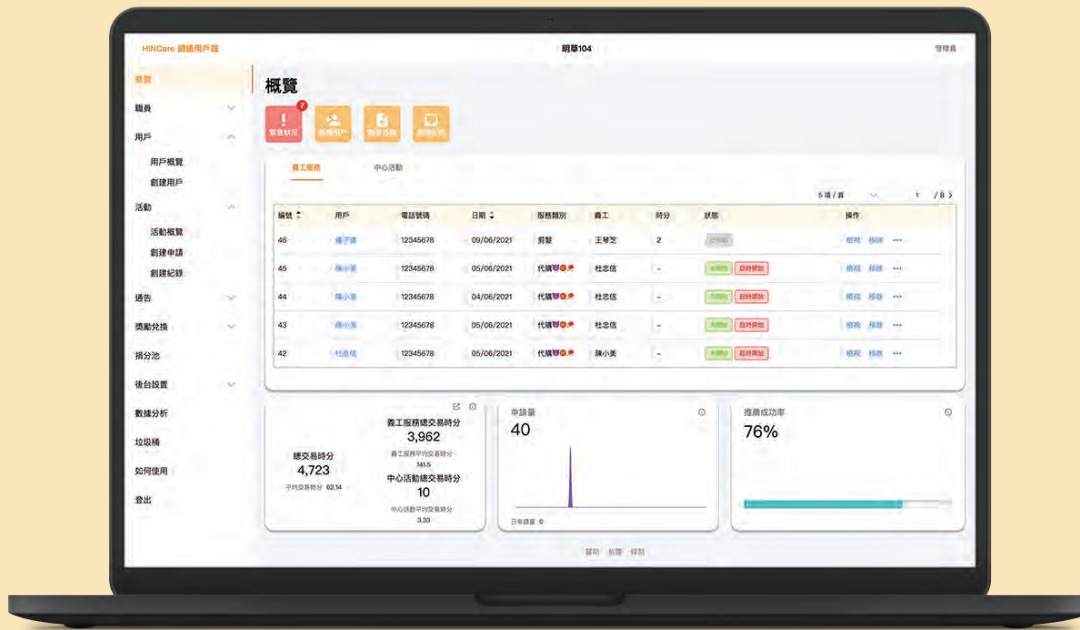
HINCare Time Bank Portal

- **For used by NGOs' staff**
- **Serve Multi-NGOs**
- **Cloud-based Server, no Installation required**
- **Easy set up of NGO designated platform**
- **Match with Mobile App**
- **Efficient management of Voluntary service/Center events**

AI Recommendation of Volunteers

- Used of HIN Algorithm to recommend suitable volunteers to the service requesters

Real-time Web Portal Monitoring

- Together with the mobile App, NGOs' Staff can monitor and follow up with the volunteering Services Progress, enhancing work efficiency

Statistic Analysis

- NGOs can use the statisitic analysis to better plan and arrange the resources to serve the community, compiling reports