

# 虛擬實景社區生活技巧訓練 (VRRehab)

## Virtual Reality (VR)-Based Community Living Skills Training Programme

安全、有效，仿如真實般的虛擬訓練

A safe and effective way for patients to receive training in real-life situation

一直以來，真實環境訓練只會在康復後期階段進行。VRRehab是一個安全和有效的方式，能為用戶提供仿如現實一樣的社區生活技巧訓練，包括使用公共交通工具、手提電話、提款機以及超市購買等。隨著虛擬實景技術發展，用戶可盡早在虛擬環境中接受訓練，縮短康復時間。此外，FMRI研究揭示虛擬實景與真實環境對於腦神經結構的活化是非常類似的，這成了虛擬實景康復應用的又一實證支持。



Traditionally, training in real environment is given at the final stage of rehabilitation programmes. VRRehab is a computer-assisted rehabilitation system based on Virtual Reality (VR) technology for patients to receive simulation training, such as using public transport, mobile phones and ATMs as well as grocery shopping, in a safe and real-life environment at the early stage. With high generalization of power of VR, together with the activation of neural structure by VR environment, which is very similar to that activated by real environment, it is conducive for patients to apply what they have learned from the training to real environment and reduce convalescent time.

### Principal Investigator

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### 特色與優點

- 簡易的操作模式、豐富的視聽刺激與可自訂的訓練難度能有效加強用戶的訓練動機，進而提高訓練成效。
- 多項配合社會文化的訓練項目及仿如真實的訓練環境令用戶更有信心在把訓練成果運用到現實生活環境中。

### 應用

虛擬實景社區生活技巧訓練可應用在以下康復範疇：

- 後天腦部創傷，如中風、腦外傷
- 認知功能缺損，如認知障礙症及腦退化症
- 精神科病症，如精神分裂症

### Special Features and Advantages

- User-friendly control system, vivid visual and audio stimulation and highly customizable level of difficulties increase patients' training motivation and enhance the training effectiveness.
- A variety of culturally relevant tasks and real-life training environment increase the confidence of patients for applying the learned skills in the community.

### Applications

VRRehab can be widely applied in the following fields of rehabilitation:

- Acquired brain injuries, such as stroke and traumatic brain injury
- Cognitive impairment, such as mild cognitive impairment and dementia
- Psychiatric illnesses, such as schizophrenia

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