

# Developing a General Framework / Platform for Annotating / Archiving Crowd-sourced Multimedia / Knowledge of Biodiversity / Ecology / Environment: Phytophilo Community as an Example

Guan-Shuo Mai<sup>1</sup>, Fu-Chung Yang<sup>1</sup>, Yu-Huang Wang<sup>1\*</sup>, Maoning Tuanmu<sup>1</sup>,  
Kuo-Fang Chung<sup>1</sup>, Eric Yen<sup>2</sup>, Simon Lin<sup>2</sup>, Tyng-Ruey Chuang<sup>3</sup>

<sup>1</sup> Biodiversity Research Center, Academia Sinica

<sup>2</sup> GRID Computing Center, Academia Sinica

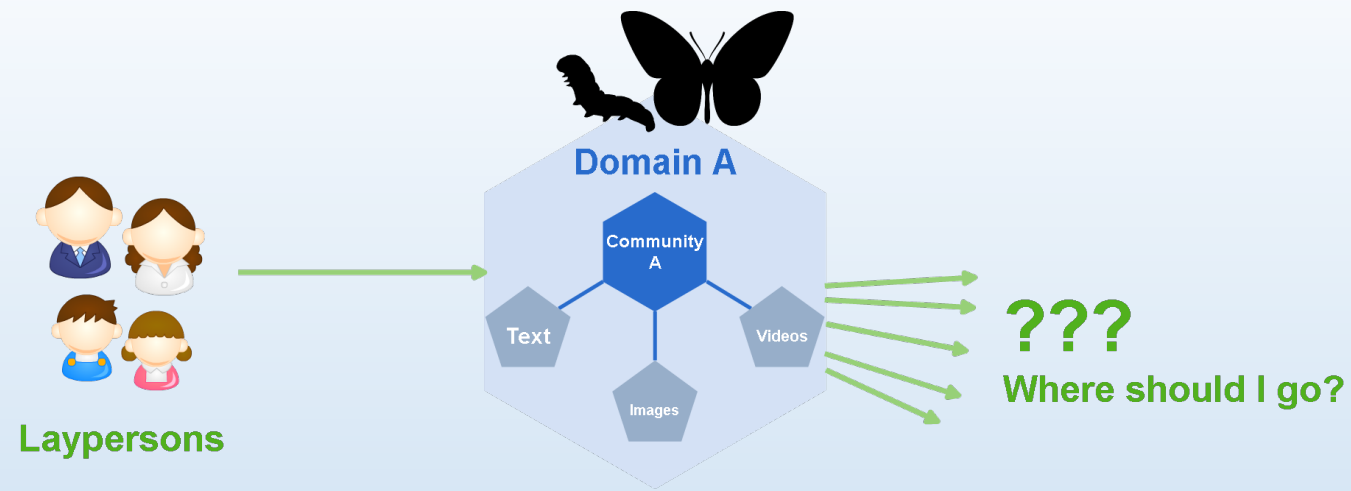
<sup>3</sup> Institute of Information Science, Academia Sinica

2016 Workshop on Collaborative Data Projects

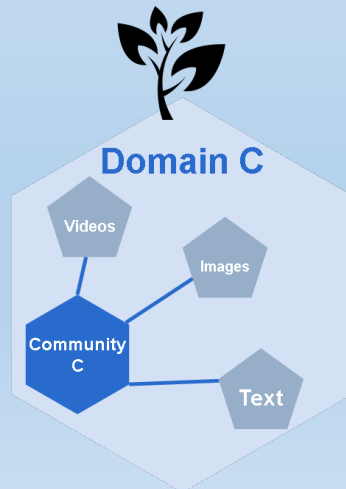
2016-12-08, Institute of Information Science, Academia Sinica



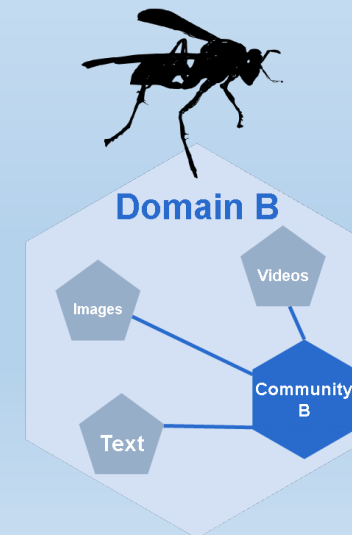




## No Linkeage Between Communities and Their Knowledge on Web



Other Experts, Amateurs,  
Any Person





# Image / multimedia annotation based on domain ontologies

← → 210.240.1.25/~nc/bbs/showthread.php?p=2290#post2290

05-12-14, 15:10

clevera

註冊日期: 2005-11-22  
文章: 4353  
精華: 30  
現金: 7006 元  
資產: 930300 元  
聲望值: 228  
聲望: 839

什麼鳥喜歡吃裡白蔥木的果實

裡白蔥木分布在低中海拔山區森林邊緣或是向陽地區  
現在差不多是中海拔植株的果實成熟期  
不知道什麼鳥喜歡吃他的果實:confused: :confused:

上傳的圖檔: 請伙伴注意著作權

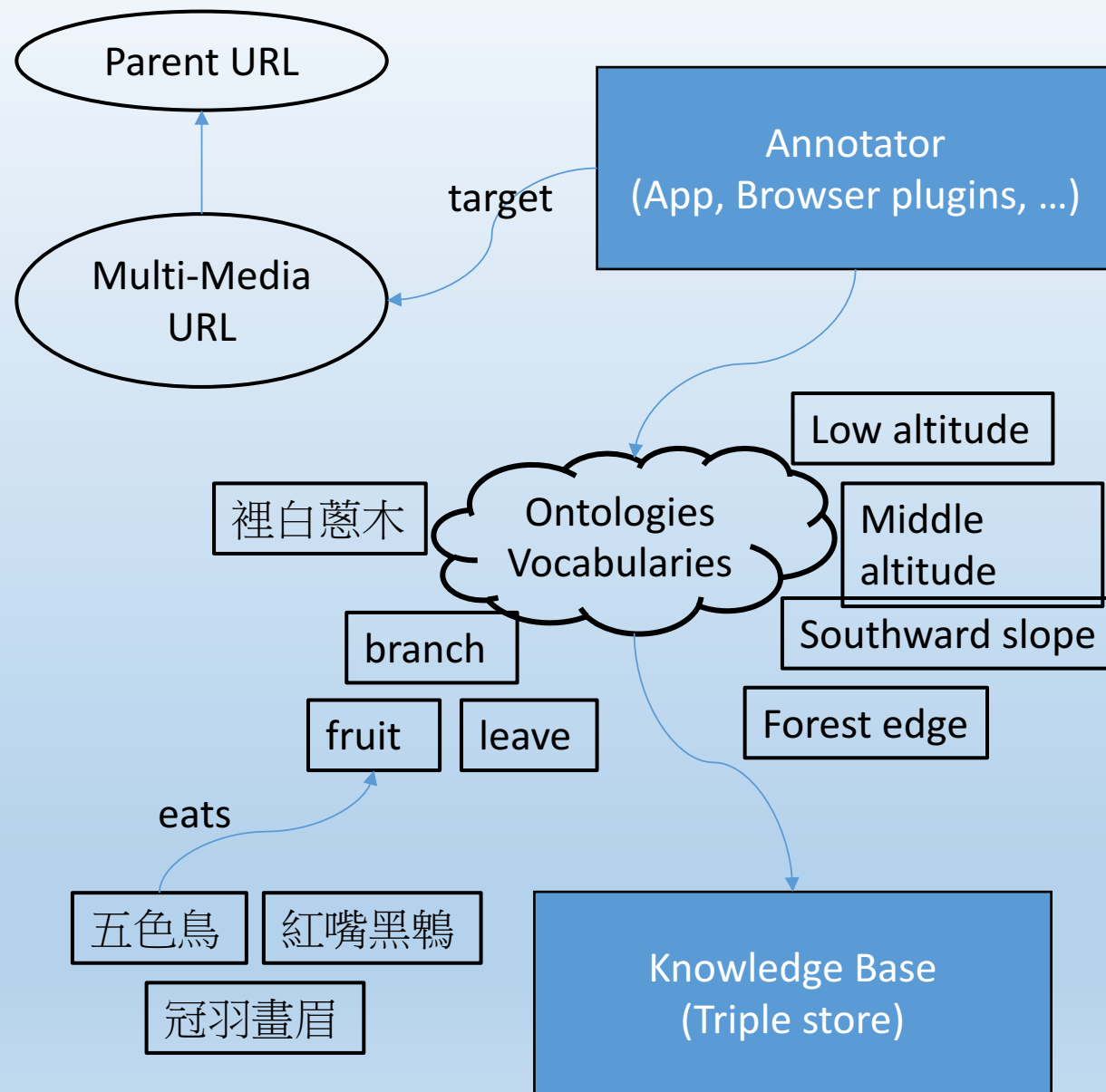


05-12-16, 21:08

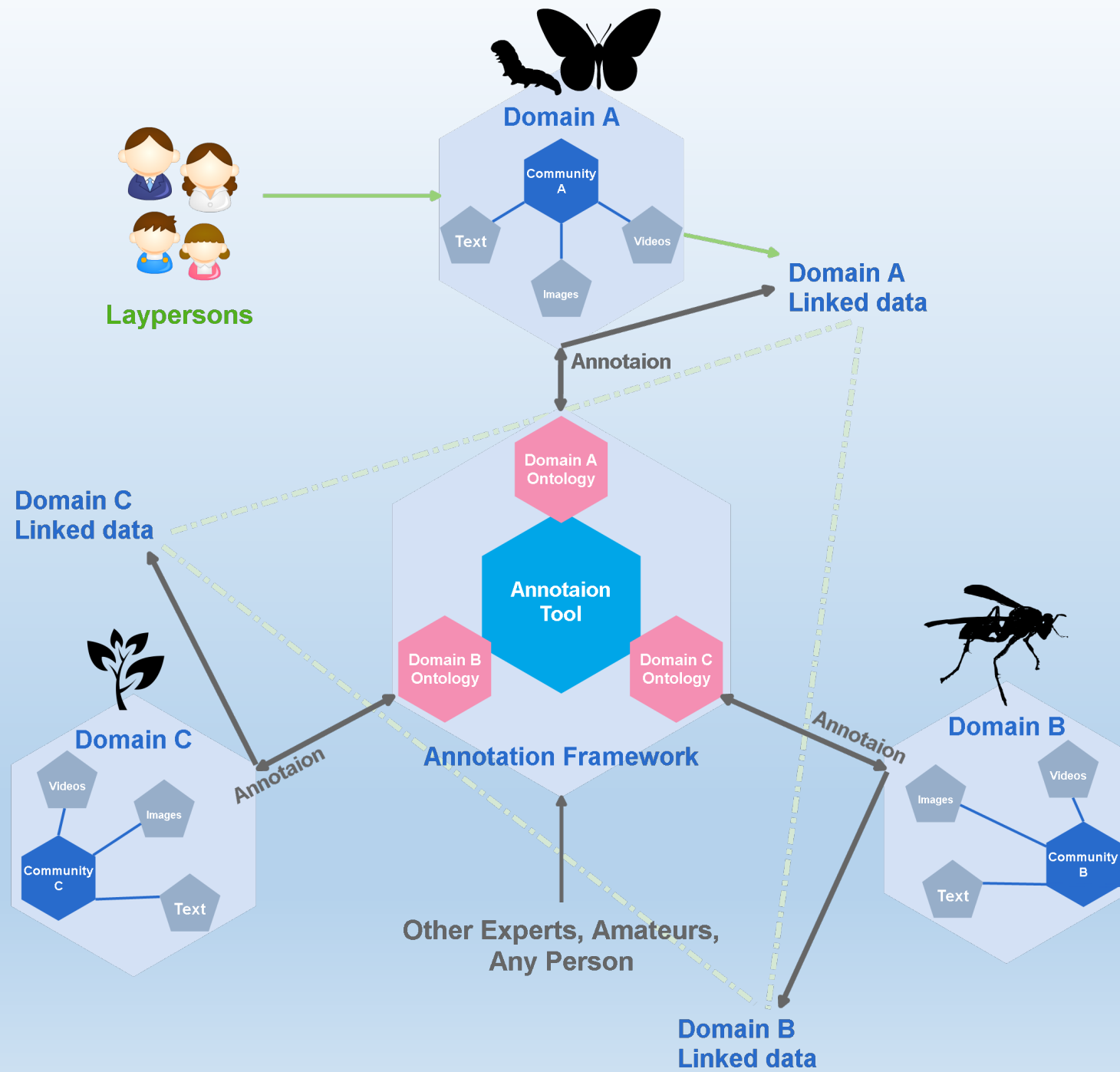
tertiary 正式會員

回覆: 什麼鳥喜歡吃裡白蔥木的果實

我看過五色鳥、冠羽畫眉、紅嘴黑鵯 :) :)  
本校旁邊有幾棵  
下次好好統計一下

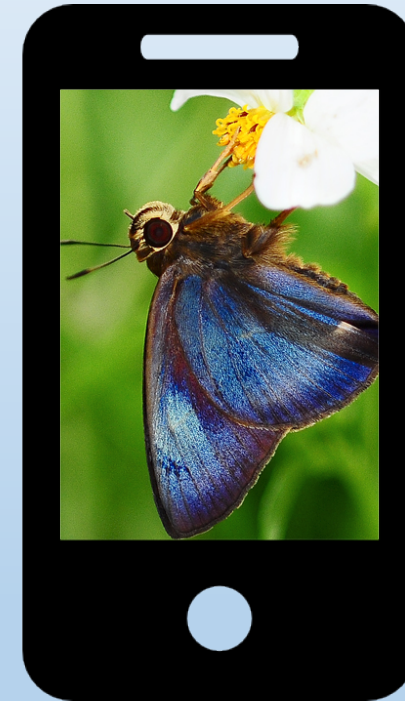
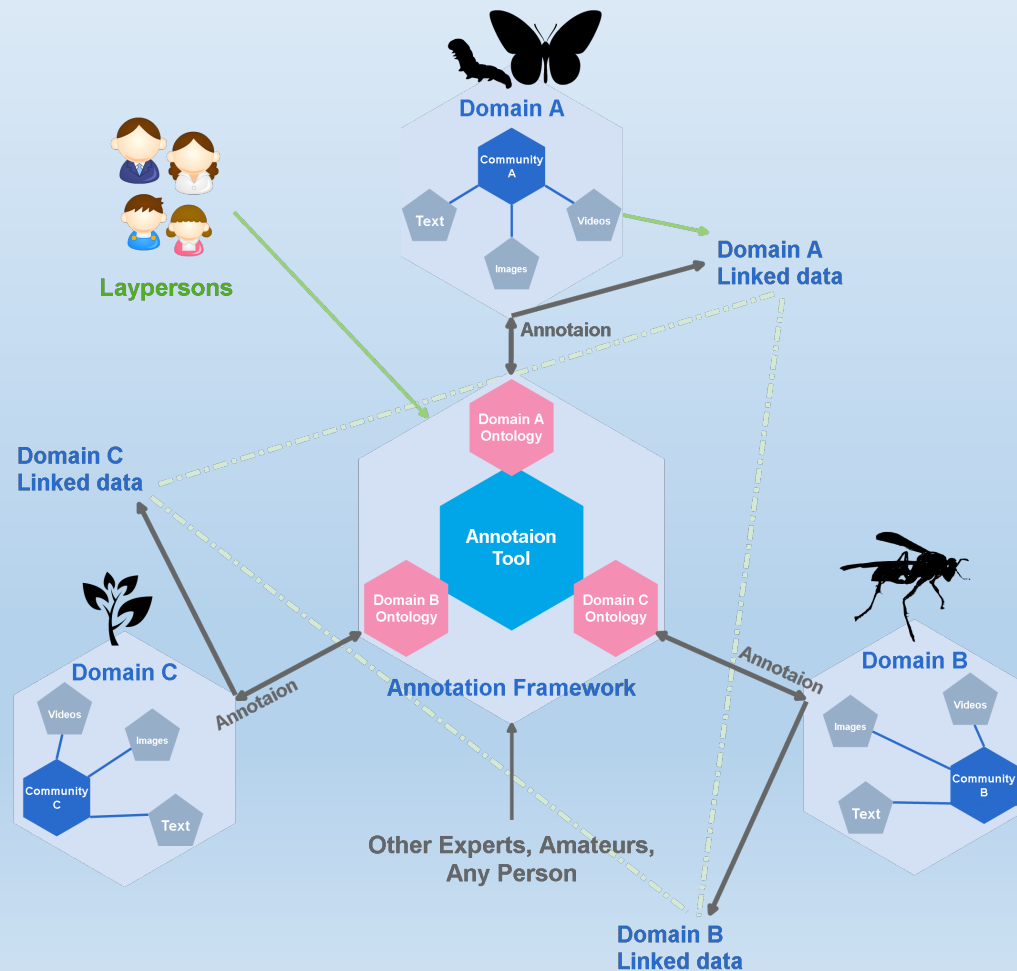






# Potential Application

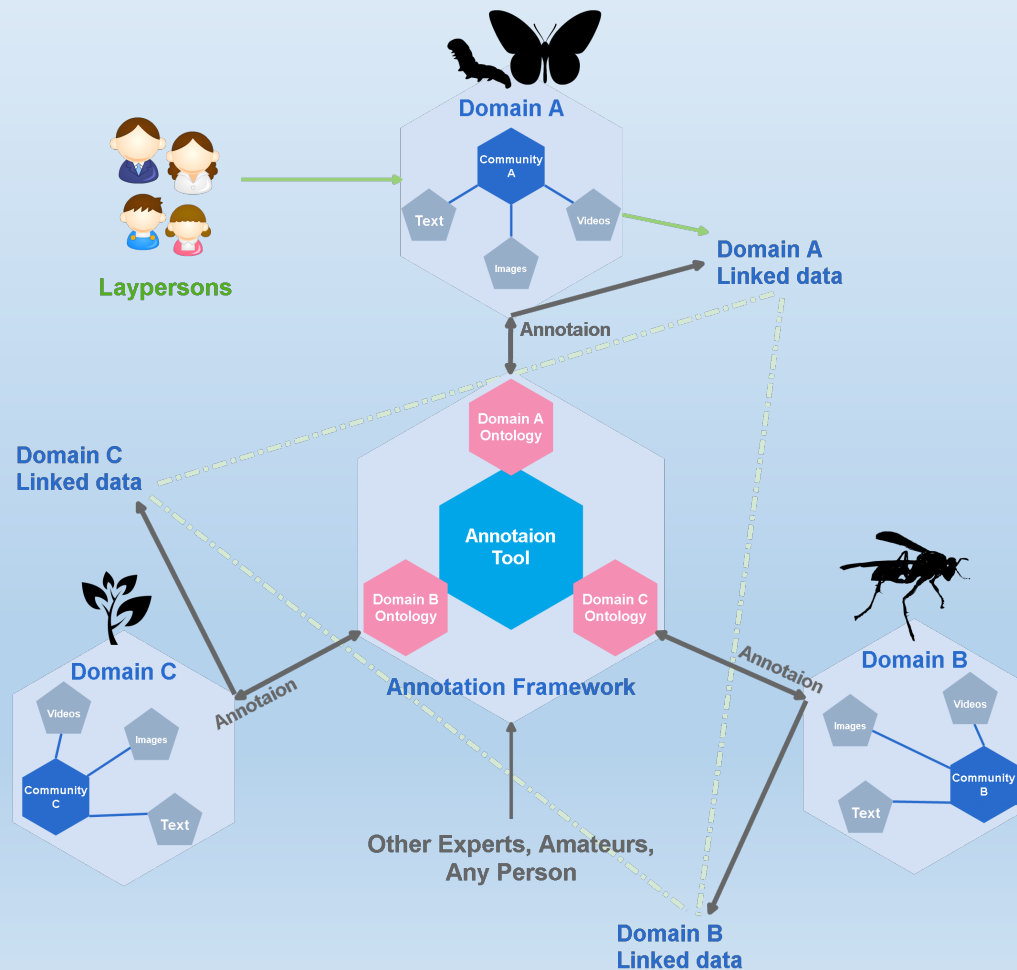
To help collect biodiversity / ecological data in digital format in ecological surveys using mobile devices



# Potential Application

Many, many annotated data

→ Training data for deep learning





# Survey and study existing semantic annotation data model

- W3C Open Annotation Data Model  
<http://www.openannotation.org/spec/core/>
- W3C Image Annotation on the Semantic Web  
<https://www.w3.org/2005/Incubator/mmsem/XGR-image-annotation/>
- DarwinCore RDF <https://github.com/tdwg/rdf>
- Plant ontology <http://www.obofoundry.org/ontology/po.html>
- EOL TraitBank data model

....

# The whole idea...

- Flexible annotation tools embedded with...
- Annotation data model / ontology
- Frontend mobile App for collecting multimedia (image, video, audio)
- Persistent storage for annotated multimedia
- Data center for integrating all kinds of biodiversity and ecological data based on GRID infrastructure to create an open data platform for integrating crowd-sourced data & knowledge of biodiversity / ecology

# Demo

<http://twebi.net/imgAnn/ann.html>



# Installation

(one step only)

twebi.net/imgAnn/ann.html

← → ↻

twebi.net/imgAnn/ann.html

☆

🏠

🔍

🔖

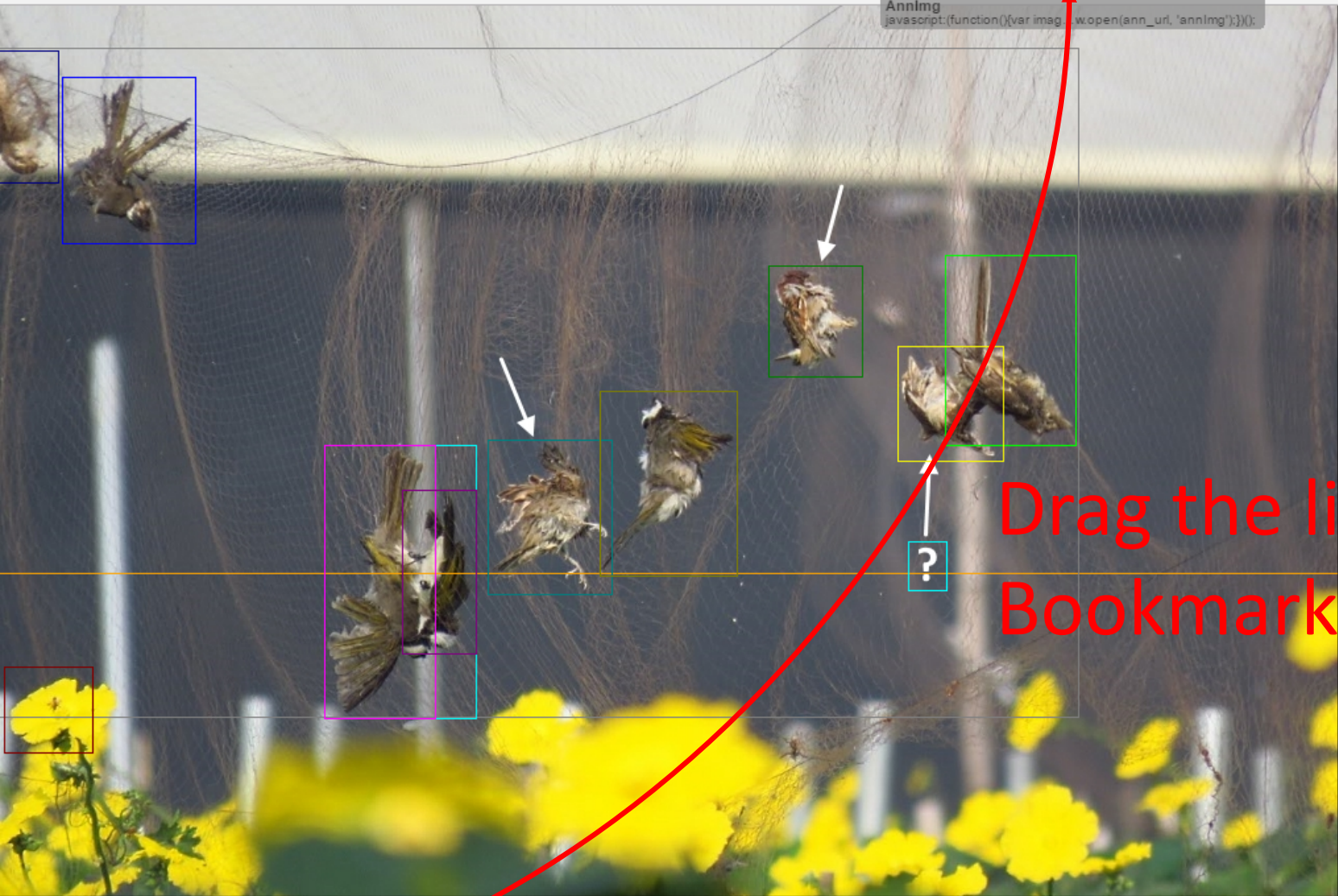
🔗

👤

⋮

📄 應用程式Autocomplete with FaskHow to install softwaHeroku | Sign up📄 程式語言面試考題集GIG 史上最全的植物形態圖OpenLink StructuredAdvanced Jupyter NotebookUsing Jupyter NotebookHow to reuse a contJupyter Notebooks

AnnImg  
javascript:(function(){var img = window.open(ann\_url, 'annImg');});



圖片來源 <https://roadkill.tw/occurrenc> prev next  
☐ 自動選擇全影像 create new token  
paste as new  
**AnnImg**

What to do?  
Hotkeys:  
[T] to toggle panel.  
[:] to console.  
[C] to create a new token.  
[Esc] to cancel editing / close panel.  
[↑] previous token.  
[↓] next token.  
[→] next image.

Mouse:  
Double click on PAN to toggle panel.  
Drag panel with yellow bar.  
Single Image with validations

PAN

submit

save current image list

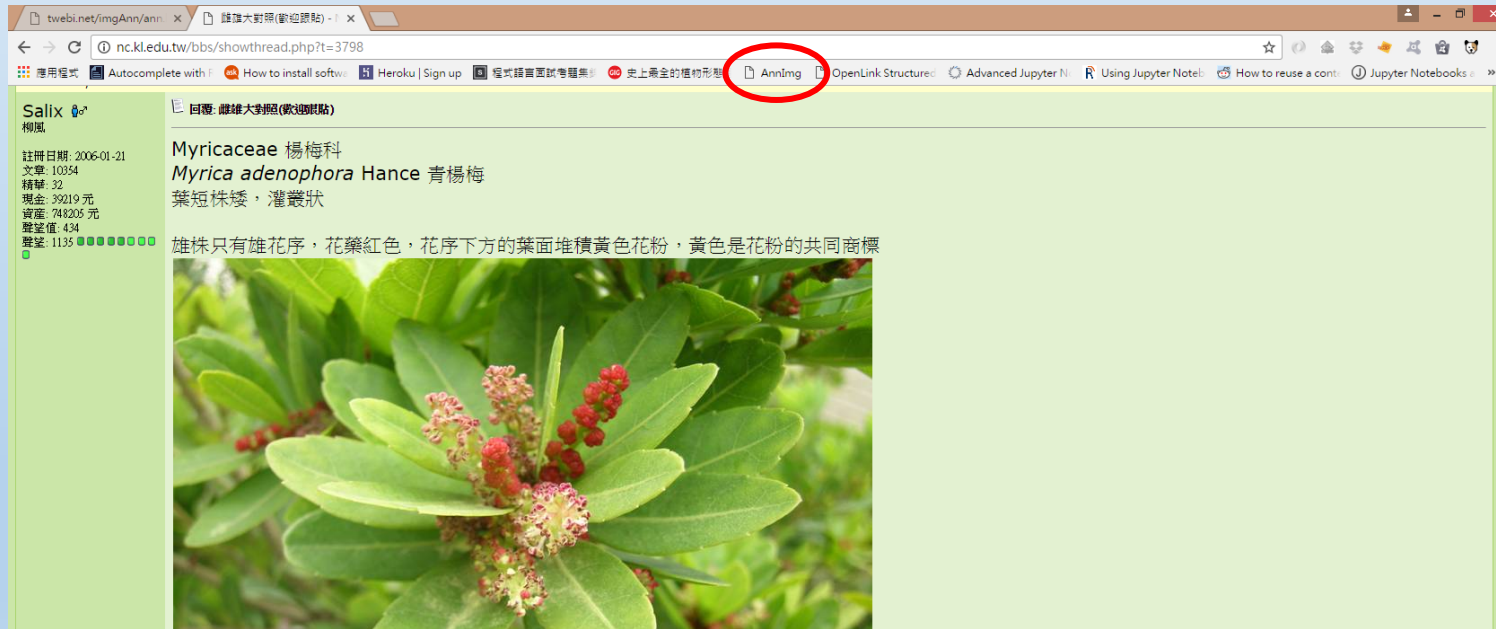
merge to saved image list

Quick start



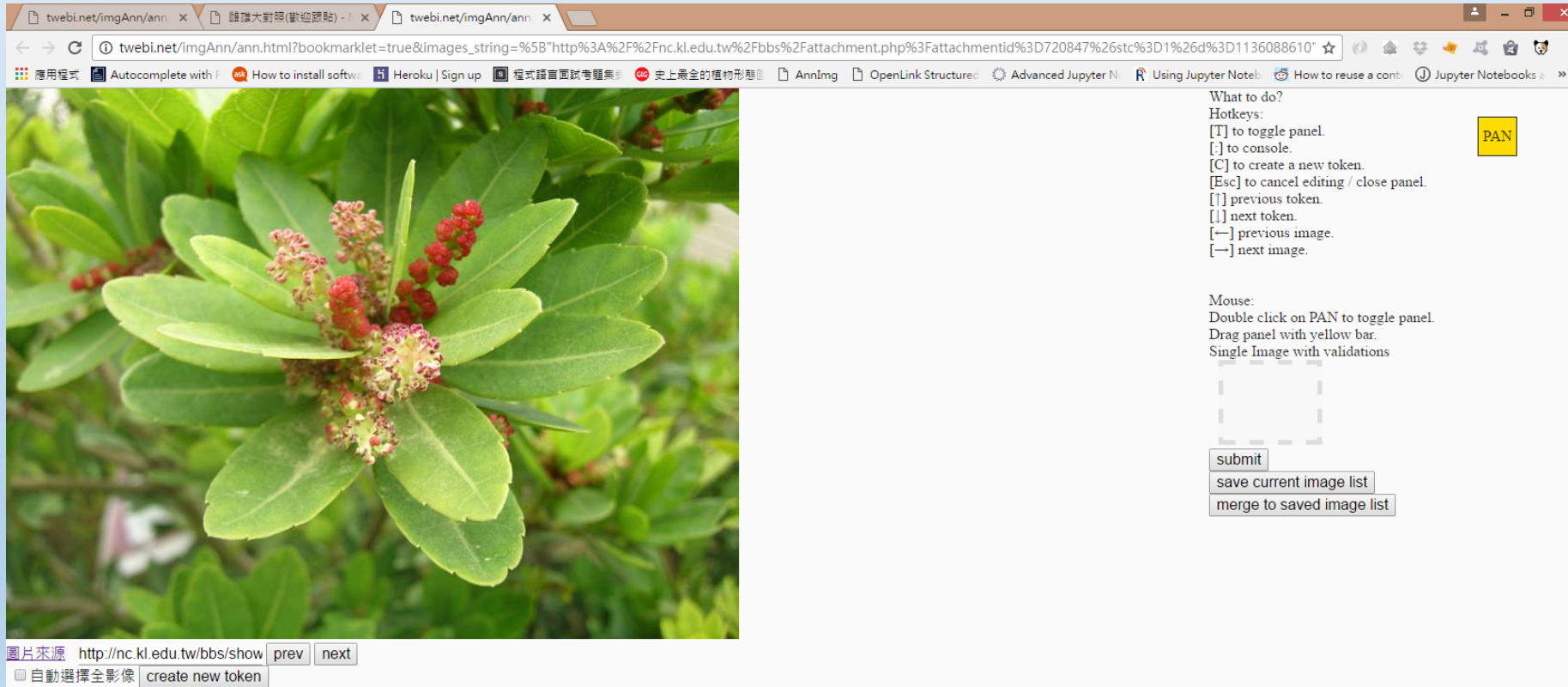
# While at any page with image(s)

- E.g. <http://nc.kl.edu.tw/bbs/showthread.php?t=3798>
- Click **AnnImg** on the Bookmarks



# Switch to target image

- Click on **next / prev buttons** or press **arrow right / left** to switch



The screenshot shows a web browser window with a single tab titled "twebi.net/imgAnn/ann...". The address bar contains a long URL. The browser's toolbar shows various icons and extensions. The main content area displays a close-up photograph of a plant with green, lanceolate leaves and clusters of small, reddish-pink flowers. To the right of the image is a control panel with the following text:

What to do?  
Hotkeys:  
[T] to toggle panel.  
[:] to console.  
[C] to create a new token.  
[Esc] to cancel editing / close panel.  
[↑] previous token.  
[↓] next token.  
[←] previous image.  
[→] next image.

Mouse:  
Double click on PAN to toggle panel.  
Drag panel with yellow bar.  
Single Image with validations

Below the text is a dashed rectangular box. At the bottom of the control panel are three buttons: "submit", "save current image list", and "merge to saved image list". A yellow button labeled "PAN" is positioned to the right of the hotkey list.

At the bottom of the browser window, there is a status bar with the text "圖片來源 http://nc.kl.edu.tw/bbs/show" followed by "prev" and "next" buttons. Below this is a checkbox labeled "自動選擇全影像" and a button labeled "create new token".

Happy annotating (?)