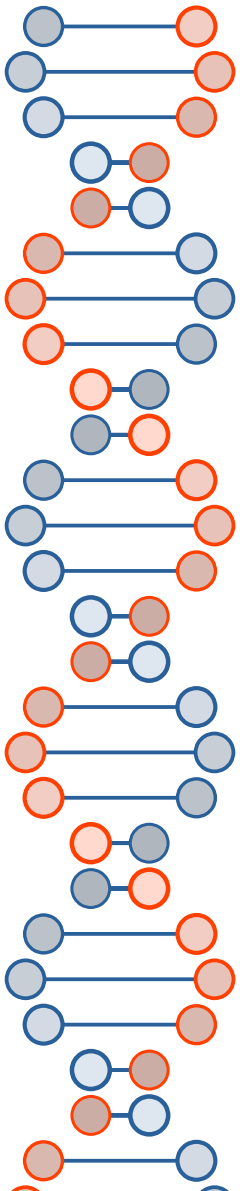


@小明 @範例 . 測試 , or, Fediverse handles in every language

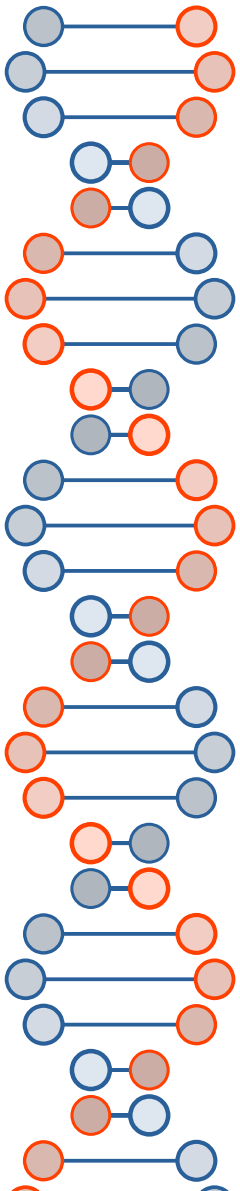
Jim DeLaHunt
@jdlh@mstdn.ca
COSCUP 2026, Fediverse track

slides: https://go.jdlh.com/coscup2026



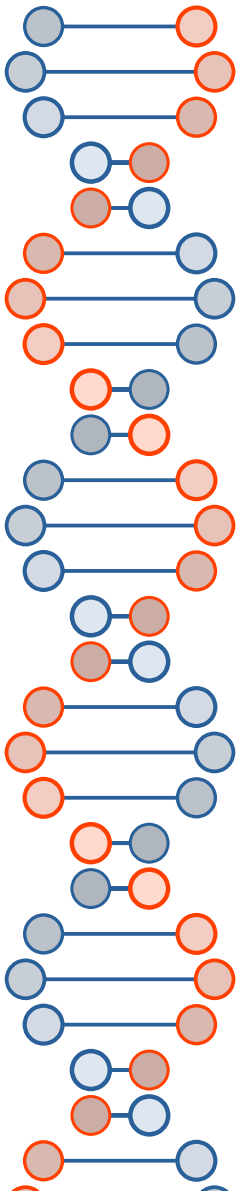
About me

- Jim DeLaHunt
- Software engineer (retired), Canada
- Interests: internationalisation, fonts, text, Unicode, languages
- @jdlh@mstdn.ca, https://jdlh.com

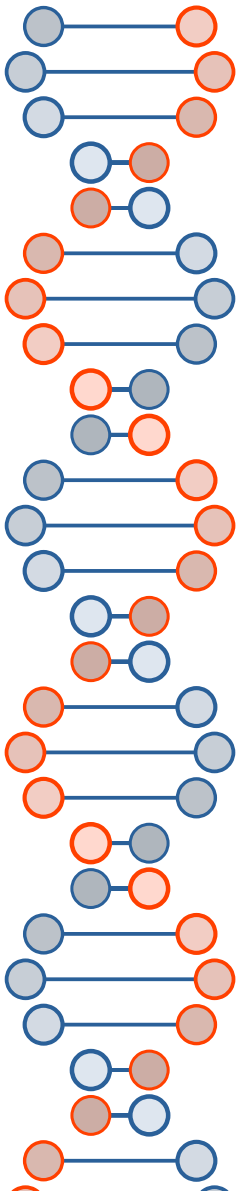


Agenda

- Fediverse “handles”
- “Globally inclusive”, and why
- Obstacles
- A path forward
- Q&A



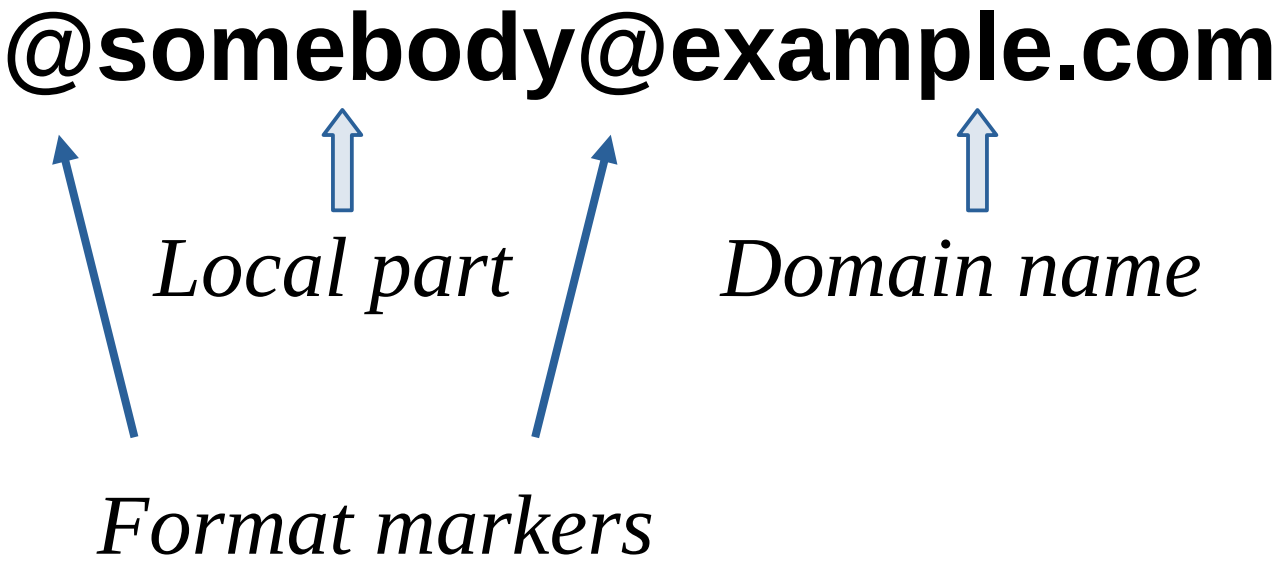
Fediverse handles

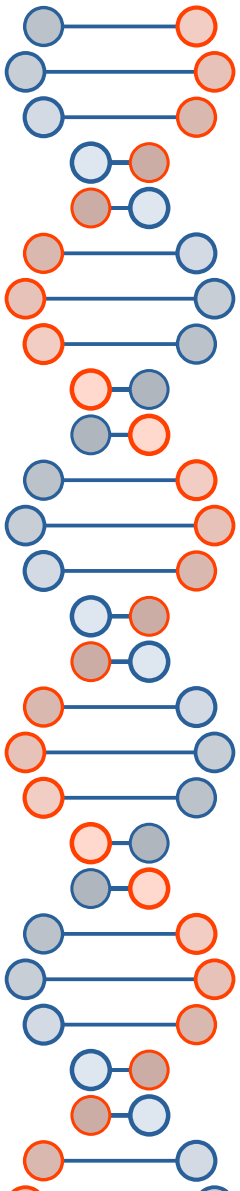


Fediverse handles

- **@somebody@example.com**
- It is a name on the Fediverse
- Called a “handle” in English

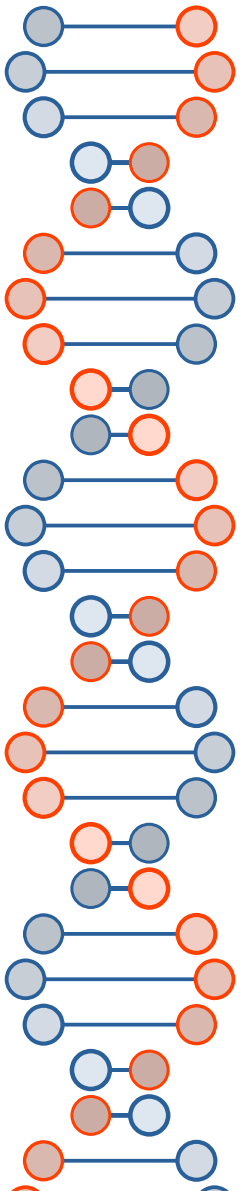
Fediverse handles





Fediverse handles

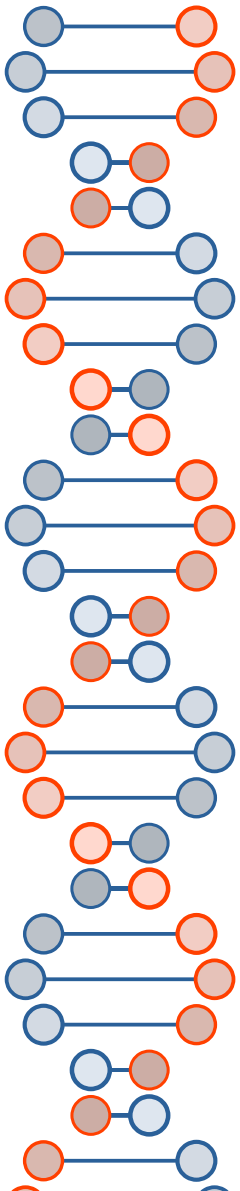
- **@ 小明 @ 範例 . 測試**
- Uses characters beyond `**A-Z 0-9 -_**`
- You almost never see this in the Fediverse today!



“Globally inclusive”, and why

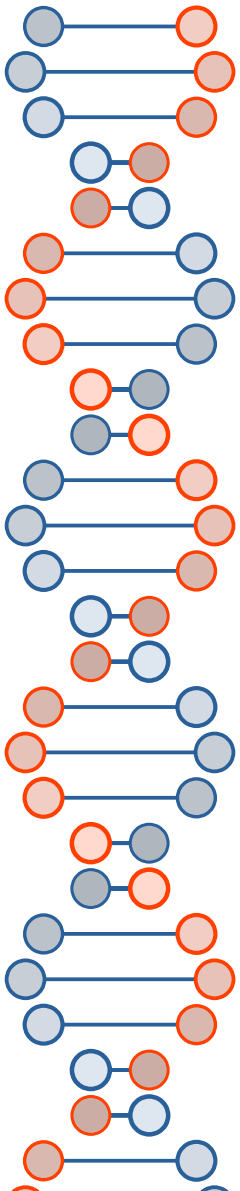
Globally inclusive Fediverse handles

- **@ 小明 @ 範例 . 測試**
- Can use characters from any language
- **@ 김 @ 예시 . 테스트 , @जिम@डाटामेल.भारत**
- Globally inclusive handles should be easy and common
- This is important



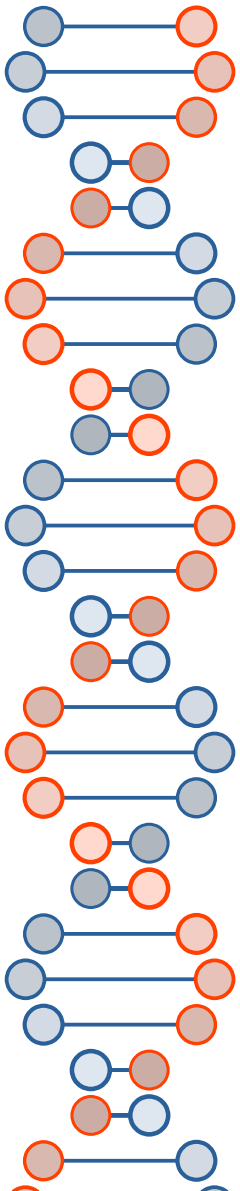
“Globally inclusive”

- A branding and marketing term
  - My proposal
- Meaning: allows characters from any language or script
  - Within reason
- Goal: easy to understand, makes my side sound good and other side sound bad
  - Contrast to: “Limited Latin” (also my proposal)
- Alternative term: “Unicode characters” vs “ASCII characters”
  - Weaker choice. Technical jargon, general public won’t understand



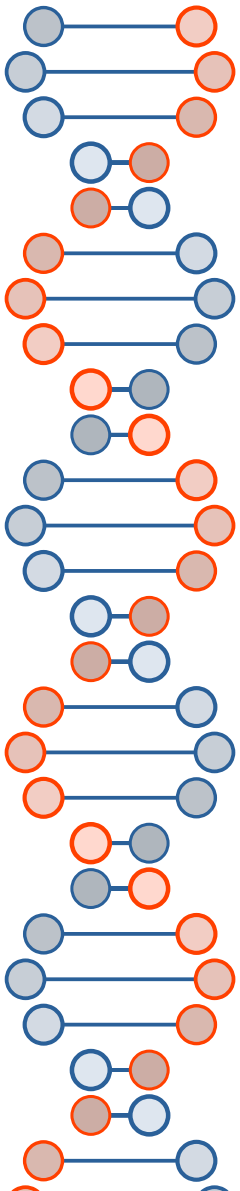
Why is this important?

- Purpose of the Fediverse is to help people connect
- Names identify the person connecting
- Names are important!
- The world has many languages
  - People have names in many languages
- The Fediverse should allow people to name themselves using the language which is easy and comfortable for them

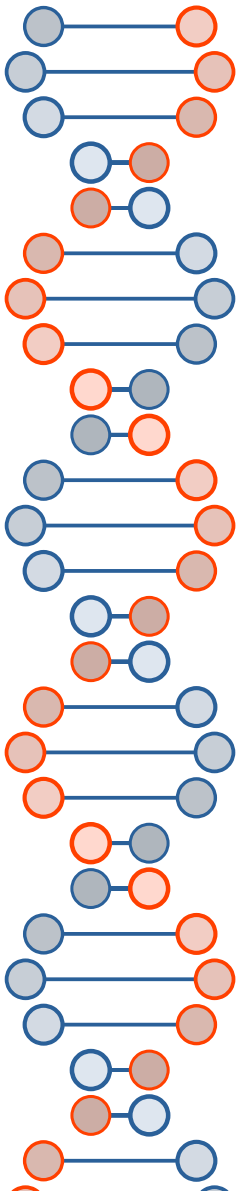


“Script” and “language”

- **Language**: communicating using spoken sounds or written symbols
  - e.g. Japanese, standard Chinese (普通話), English, German
- **Script**: a set of written symbols
  - e.g. *Han ideograph* script: 繁體字 , 简体字 : Japanese, Chinese
  - e.g. *Latin* script “abcdeüß”: English, German
- “Script” is the term for the symbols of Fediverse handles



Obstacles

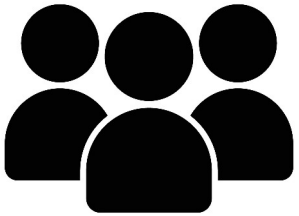


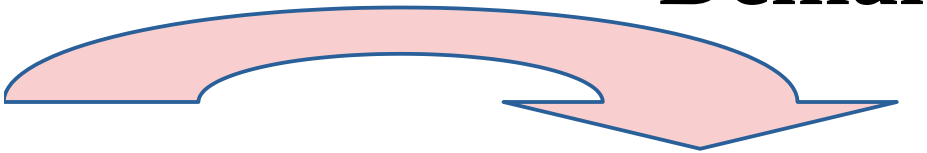
Non-obstacle: technical standards

- Not an obstacle: the main technical standards
- ActivityPub and other formal standards under the Fediverse permit characters from any language, in general
- The leaders are in favour of globally inclusive handles

Obstacle: supply-demand paradox

Demand



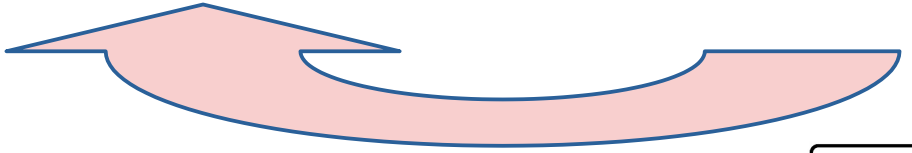


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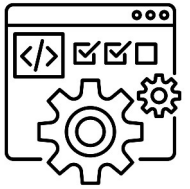
@xiaoming@example.com

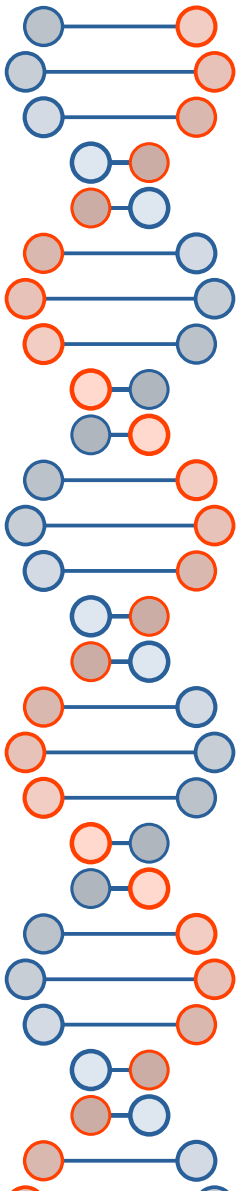
○ Limited Latin handles?
✕ Globally inclusive handles?

Supply



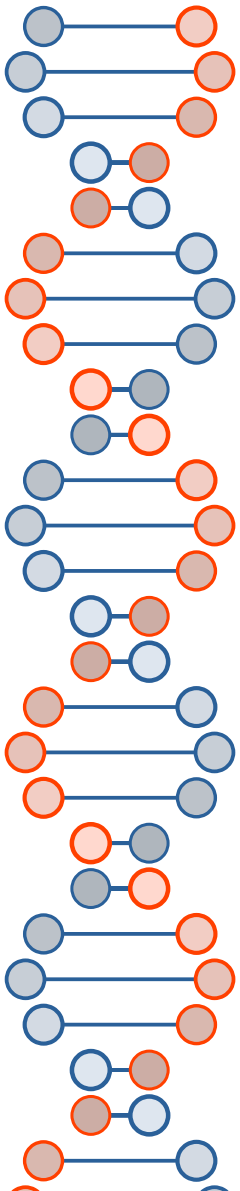
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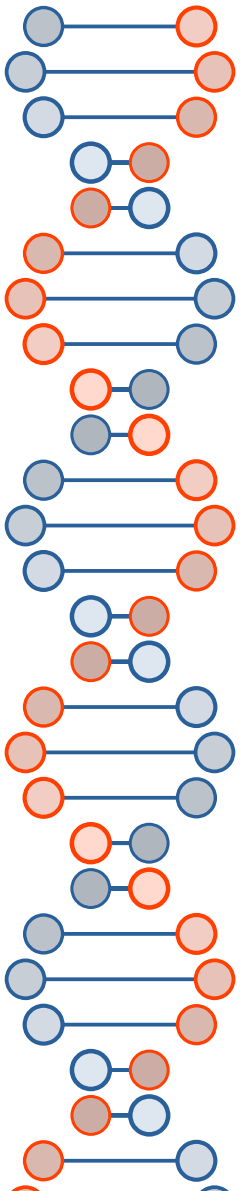
Obstacle: Fediverse is just starting

- Most Fediverse users are in Latin script areas
- Most Fediverse software is new
- Many possible new features, but limited resources
- Compared to globally inclusive handle support, other features bring better return for the cost
- As COSCUP, we can change this!
  - Many COSCUP users prefer scripts other than Latin
  - Not all software needs to change at first, just a few



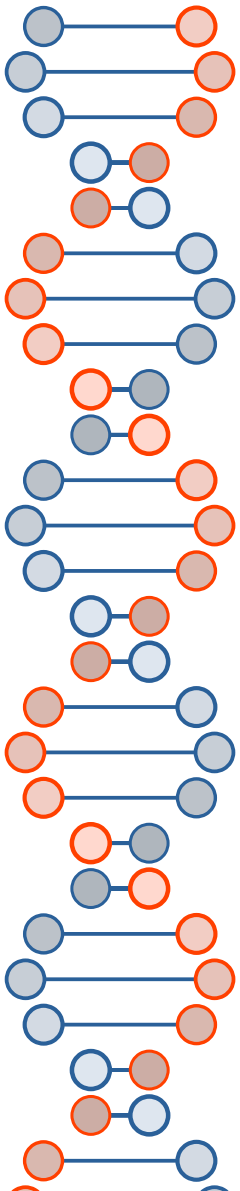
Obstacle: “handles” are not defined

- The technical specifications under the Fediverse don’t define handles like “@somebody@example.com”
  - They use URLs as identifiers https://www.w3.org/TR/activitypub/#obj-id
- WebFinger is a different specification w3.org/…/reports/socialcg/CG-FINAL-apwf-20240608
  - “somebody@example.com” → URL
- It is important to do technical work to define handles in Fediverse specifications
  - And be sure the specifications are globally inclusive

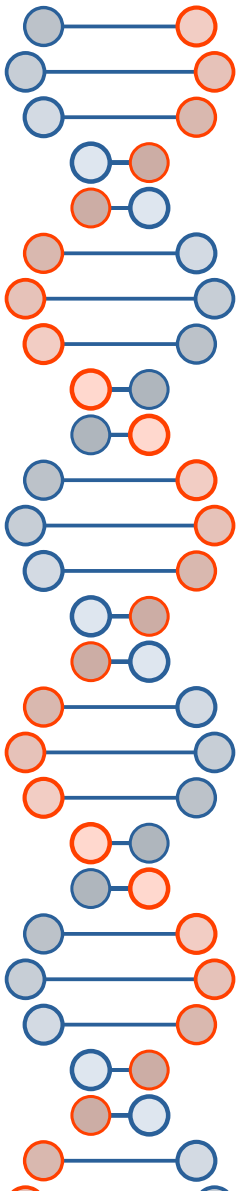


Obstacle: related technology

- Other technology apart from handles may cause problems
- **Server URL**: Can Fediverse server software run on machine with globally inclusive URL, e.g. **https:// 範例 . 測試** ?
- **Email address**: Can Fediverse software accept globally inclusive user email address, e.g. **小明 @ 範例 . 測試** ?
- **Linkification**:
  @ 小明 @ 範例 . 測試 ⇒ **@ 小明 @ 範例 . 測試**



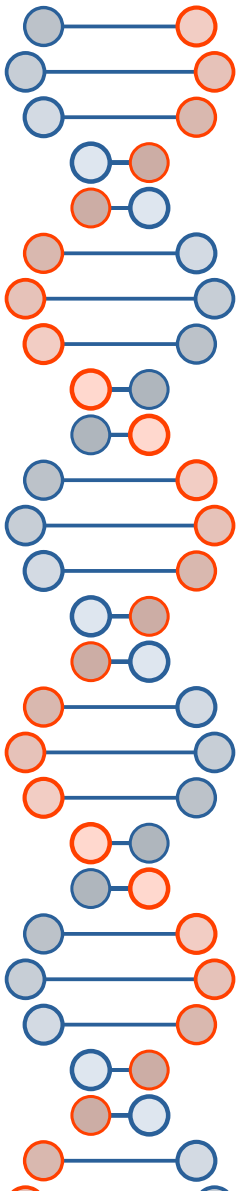
A path forward



A path forward

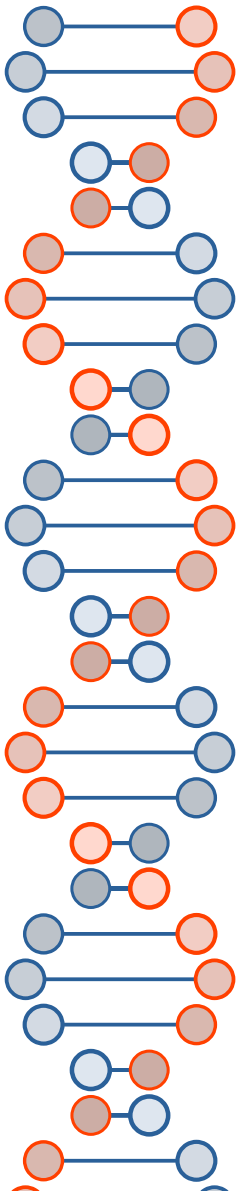
- How we can make globally inclusive handles available.

1. Pioneers
2. Fediverse software which can change
3. Small, globally inclusive gardens
4. Grow and compete
5. Standardise and guide



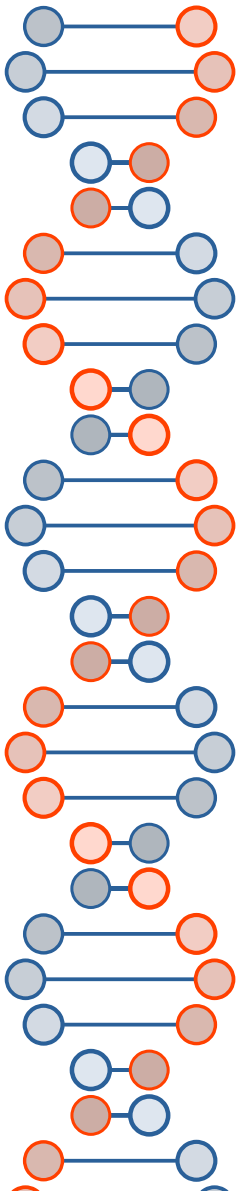
Step 1: Pioneers

- Pioneers are people who want handles strongly.
- Who will demand that software support globally inclusive handles.
- Who will use globally inclusive handles even if they are inconvenient.
- Who will lead change.
- COSCUP people!



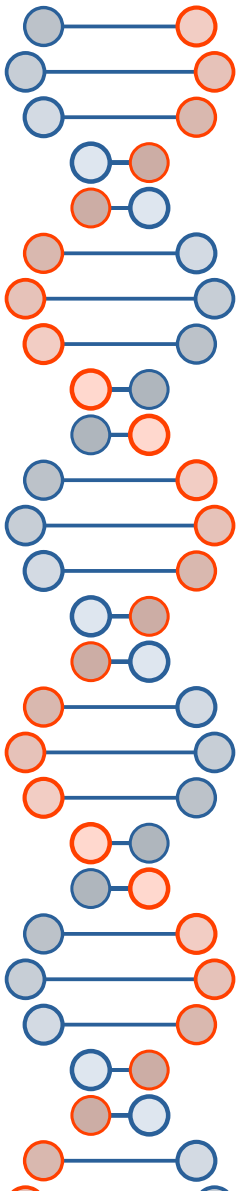
Step 2: Fediverse software which can change

- Identify Fediverse apps which can change to make globally inclusive handles usable
- Not likely the big, leading software applications
  - They have too many other demands
- Smaller applications. They are more likely to respond to requests from small numbers of pioneers.
- Apps developed by COSCUP people?



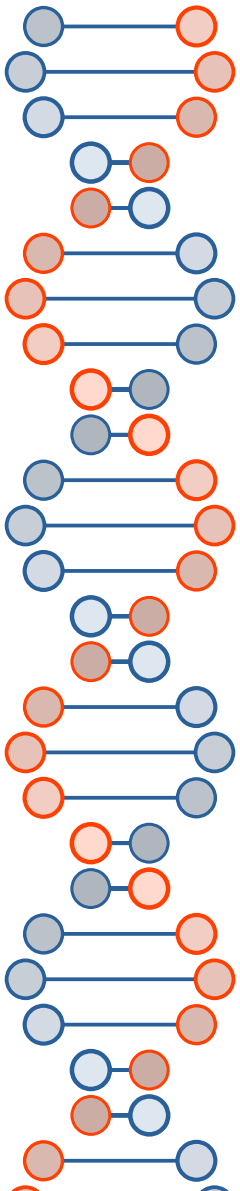
Step 3: Globally inclusive gardens.

- Small communities
  - built by pioneers
  - using whichever tools support their handles.
- They will have limitations
- But they will be able to do things that the rest of the Fediverse cannot.
- Will people here start globally inclusive gardens?



Step 4: Grow and compete.

- Find people for whom globally inclusive handles make the difference
  - between a usable Fediverse and an unusable Fedeverse.
- Bring them in through the globally inclusive gardens
- Make the communities bigger and bigger, more and more active
- The rest of the Fediverse will notice the gardens
  - but they will be blocked, because they can’t support globally inclusive handles.
- Compete
  - Users will demand more and more globally inclusive handle support from their suppliers
  - Apps from Step 3 succeed more than the big apps, because of globally inclusive handles
  - Suppliers raise the priority of supporting globally inclusive handles
- Break the supply-demand paradox!

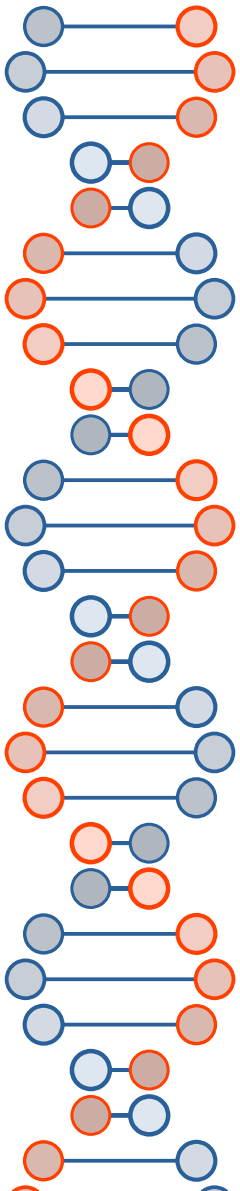


Step 5: Standardise and guide

- Become active in improving the ActivityPub standards
- Fill in gaps in the definition of handles
- Guidelines for how to add support for globally inclusive handles.
- Write down best practices
  - for software developers
  - for instance administrators

Examples we can build on

- Email address internationalisation (जिम@डाटामेल.भारत)
  - e.g. https://www.icann.org/ua
  - e.g. https://uasg.tech/
- Internationalised Domain names (http://ยูเอทดสอบ.ไทย)
  - e.g. https://icannwiki.org/Root_Zone_Label_Generation_Rules
- Unicode: characters in identifiers, and security
  - e.g. https://www.unicode.org/reports/tr39/
- IETF guidelines on characters in email addresses
  - e.g. https://www.rfc-editor.org/info/rfc9839/



Conclusion

- Globally inclusive handles should be easy and common
- There are obstacles
- There is a path to follow
- Help me find: Pioneers, Fediverse software to change
- Let’s plant globally inclusive gardens
- Let’s bring @ 小明 @ 範例 . 測試 to the Fediverse!

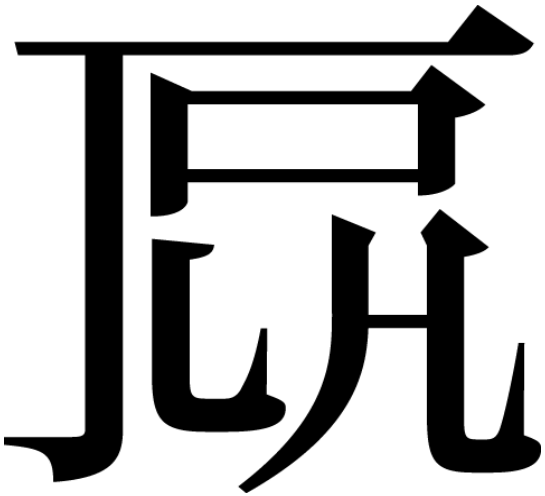
Thank you!

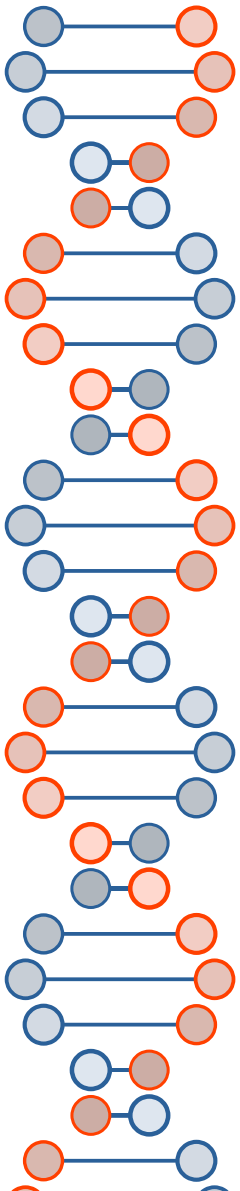
- Q&A
- slides: https://go.jdlh.com/coscup2026
- Jim DeLaHunt, @jdlh@mstdn.ca, https://jdlh.com

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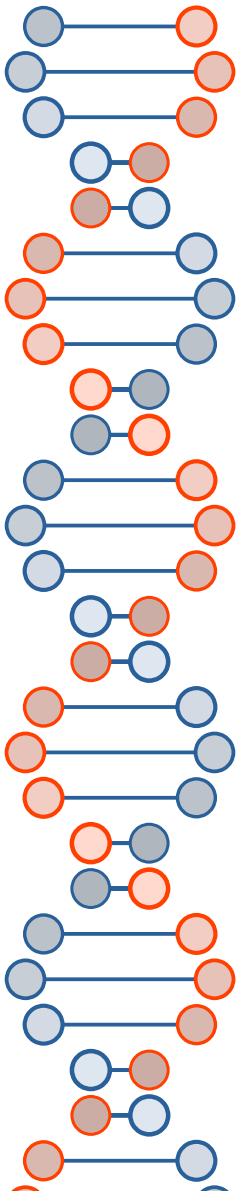
Thank you!

- Jim DeLaHunt, @jdlh@mstdn.ca, https://jdlh.com



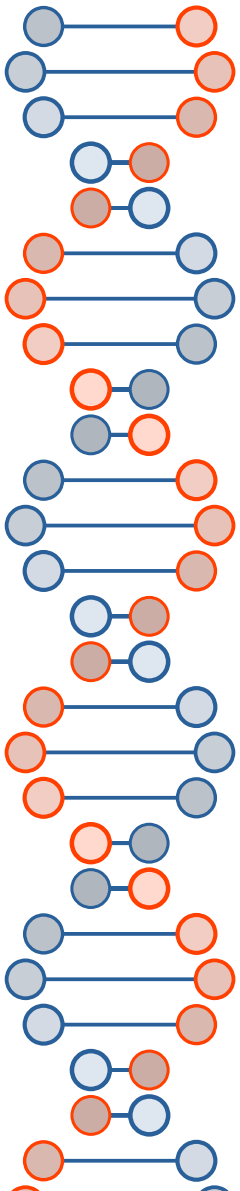


Extra slides



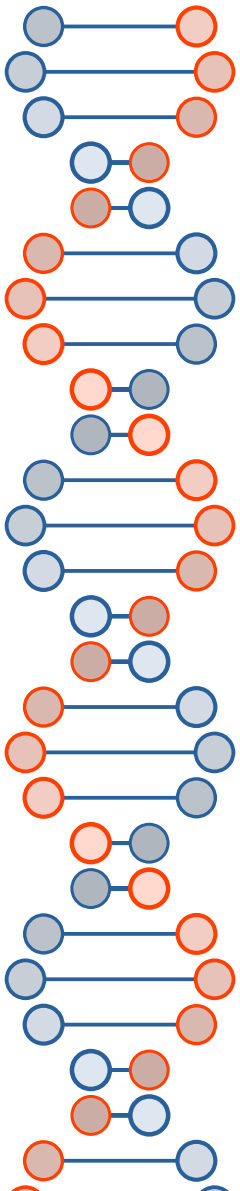
Objection: Many people can use Limited Latin handles already

- Yes, some are smart enough and adaptable enough
- But is this ideal for them? No
- Is it ideal for attracting a larger population? No
- Attract the next, larger population with globally inclusive handles



Objection: Hard to read and enter handles in unfamiliar language

- Distinguish communicating *within* and *between* language communities
  - *Within* is much more common than *between*
- *Within*: handles in the familiar script will be easier than foreign
- *Between*: will benefit from tools
  - e.g. aliases: single Fediverse user, multiple handles for different uses,all directing activity to a single stream.
- Work needed to figure out how aliases should work in the Fediverse



Objection: security risks, homoglyph attacks

- Fear that globally inclusive identifiers create security risks
  - e.g. microsoft vs microsoft (Cyrillic ‘o’) vs m1crosoft (digit ‘1’)
- Response: consider tradeoffs, advantages against disadvantages
- Advantages of globally inclusive handles greatly outweigh disadvantages
- Point of view matters
  - A Latin-script user sees little advantage
  - A global user for whom Latin script is a workaround sees big advantage
- Rules exist to reduce risks, e.g. no script mixing