Web 2.0 and science education: beyond entertainment

Alan J. Cann

Department of Biology

University of Leicester.

Web 2.0 ?

Web 2.0:

"A perceived second-generation of Web-based services such as social networking sites, wikis, communication tools, and folksonomies that emphasize online collaboration and sharing among users"
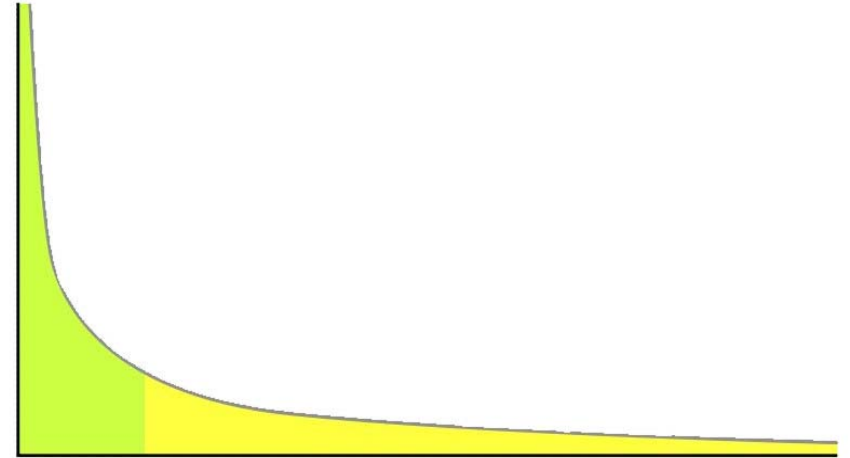
Web 2.0 sites

Blogging / Podcasting at:

- *microbiologybytes.wordpress.com*
- *scienceoftheinvisible.blogspot.com*
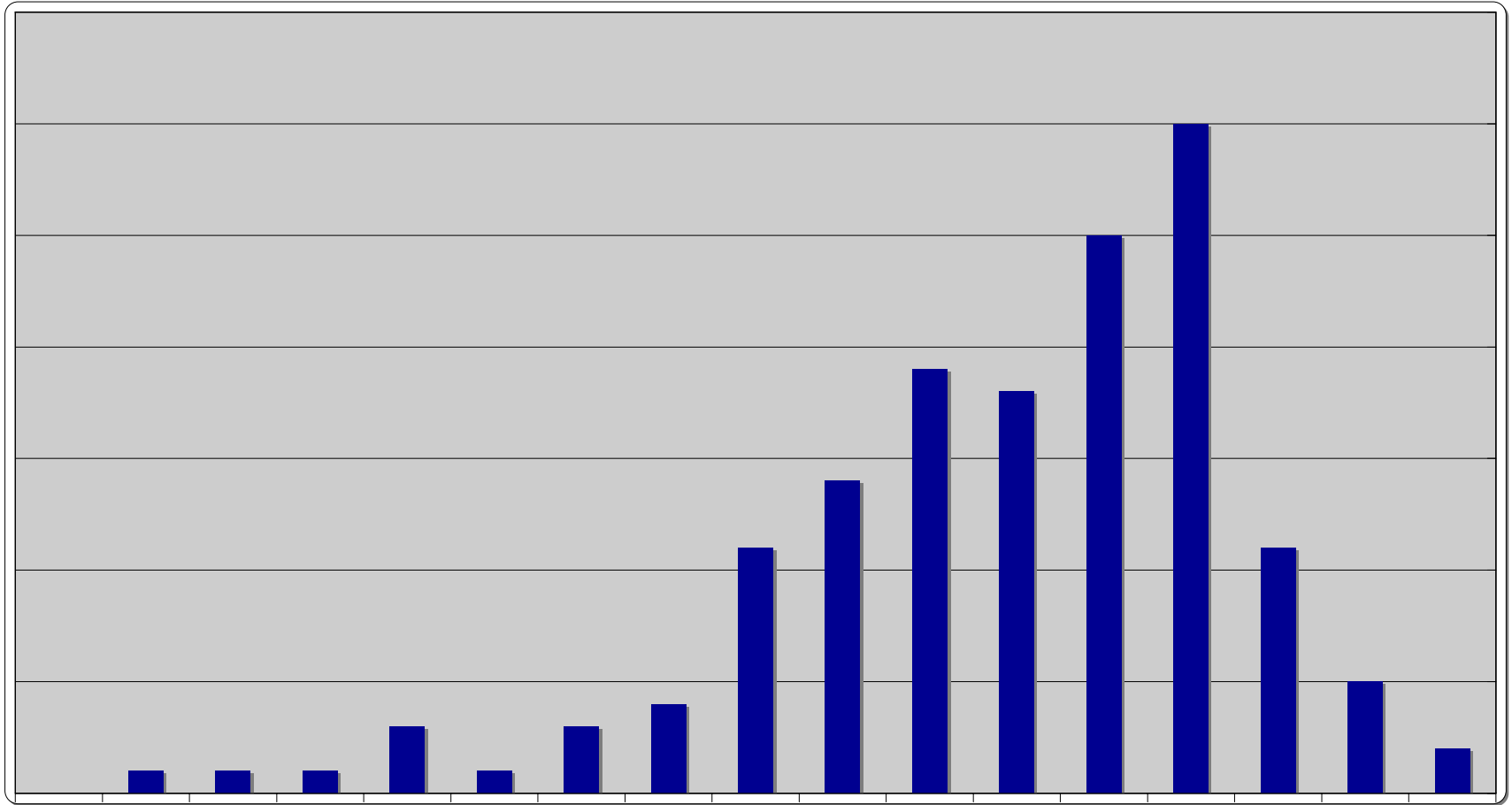- *iscience.wordpress.com*

The Long Tail

- **Low-frequency or low-amplitude population which comprises the majority.**

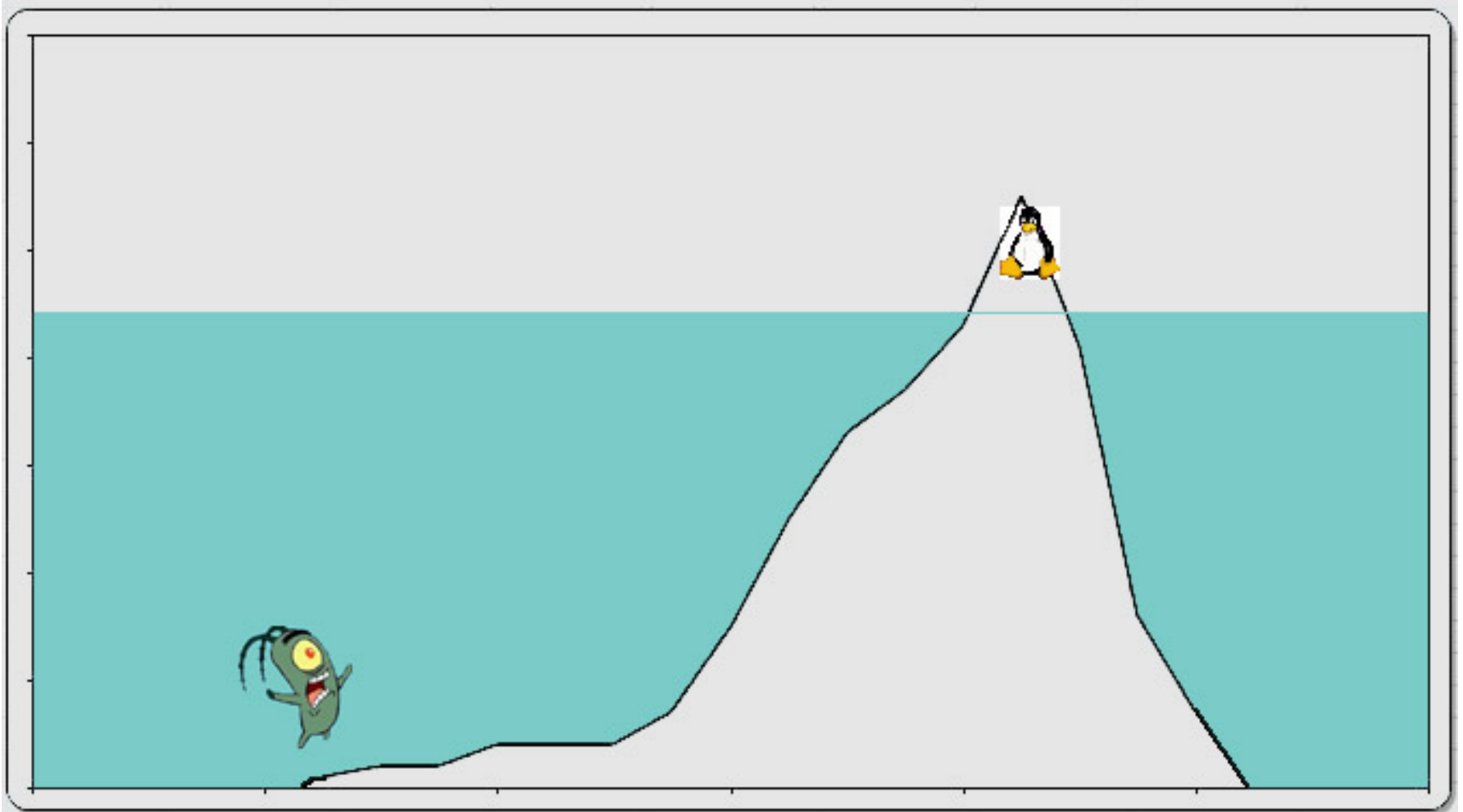 *Chris Anderson, Wired, Oct. 2004*
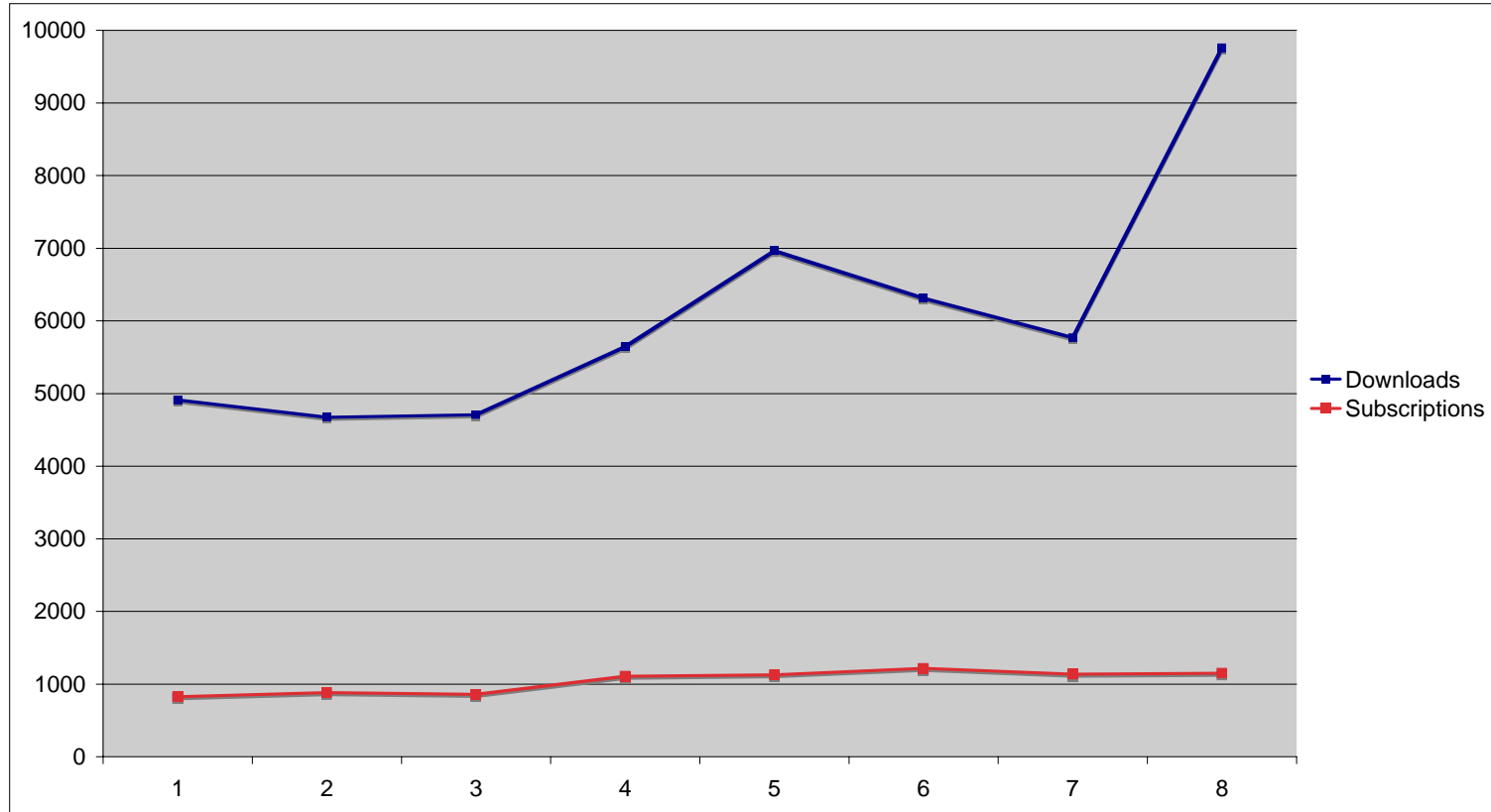
en.wikipedia.org/wiki/Long_tail

The Long Tail

Let me put it another way…

Are podcasts *The Answer* ?

- **The push delivery subscription model via RSS is a barrier to access.   A large majority prefer the click and download model (pull rather than push).**

lonelygirl15

en.wikipedia.org/wiki/Lonelygirl15

Viral Video
Statistics is fun!!!
(really)

So does it work?

BS1011:

- **170 students**
- **Successful requests: 1,600**
- **Average per day: 25**
- **Distinct hosts served: 335**
- **Distinct browsers: 90**
- **On campus: 33%**
- **Off campus: 67%**
- **Requests per student per video: 0.94**

BS2060:

- **90 students**
- **Successful requests: 545**
- **Average per day: 17**
- **Distinct hosts served: 164**
- **Distinct browsers: 32**
- **On campus: 65%**
- **Off campus: 35%**
- **Requests per student per video: 1.51**

Is this engagement?

What does it all mean?

- The success of "viral" video sites such as YouTube provides a model for high levels of penetration into student populations which cannot be ignored, but considerable further research is necessary to determine the effectiveness of these new formats and cost-benefit analysis of their production.

- Students have strong preconceived perceptions of these new formats, repeatedly commenting that they only listen to audio podcasts on computers because these are associated with "work", whereas personal mobile devices such as mp3 players and mobile phones are reserved for "entertainment".

- Students carve out a range of online spaces and are reluctant to let social and academic spaces overlap.

What does it all mean?

- Careful thought needs to be put into the production of educational "viral" videos. Excessive informality may be less attractive to students who perceive themselves to be in an online "work" environment than a slightly more authoritative delivery.

- The apparent informality of the most successful "viral" videos can be deceptive – lonelygirl15, the most successful YouTube video blog, was in reality a carefully crafted product of skillful filmmakers.

- More widespread use of online video learning objects has implications in terms of staff resources and training. Traditional HE audiovisual departments are not ideally placed to produce this type of learning material.

How do we manage the long tail?

We don't.

- **By embracing a Web2.0 approach to learning objects, we can allow academic staff to support learners on a much more individual basis through new communication channels.**

microbiologybytes.com/AJC