

# Networking History BoF

86<sup>th</sup> IETF Orlando, Florida 2013

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With help and advice from

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NPL Mark I switch box

# I. Introduction

Elizabeth Feinler, BoF Instigator

How did I get into this?

- Why should we preserve network history?
- Why IETF?

# THE NIC COLLECTION (Now at CHM)

350 BOXES

- 1st 1500 RFCs/All IENs
- Protocol handbooks
- Resource handbooks
- Arpanet/DDN directories
- Out of print Site Reports
- NLS source code/manuals
- Engelbart project repts
- NIC project repts
- ARC separation from SRI
- ARC/NIC proposals, contracts
- NSW collection
- Early email reprints
- ARC Journal/Xdoc collection
- DDN library collection
- Protocol drafts
- Postel correspondence
- Working group correspondence
- Internet monthly repts
- Network maps
- Arpanet/DDN use statistics

# HOW DO WE GET THESE TWO TOGETHER

DONORS<----->REPOSITORIES

# II. Overview

Marc Weber, BoF Chair

- First Steps
- The Need
- Existing efforts
- CHM Internet History Program
- Why IETF?
- Proposed Goals
- Not on the Agenda

# First Steps

Helping match networking-related historical materials with the archiving institutions that may preserve them

- Ideally includes preserving selected materials in real-time, as they are produced

# The Need – general

- As tools and media go digital, we're saving less, and more randomly. May change later, but major risk of “digital dark age”.
- Other fields depend on knowing the past; from science to mechanical engineering to literature to fashion. Computing is especially a-historical
- What *does* get saved is not necessarily the important stuff



# The Need – this community

- Many of you are writing poetry in the sand... or at least prose
- Right now, living memory. But later?
- Asynchronous: Why do so much long, hard work and then not take fairly simple steps to preserve it?
- Clarity reduces liability and potential confusion

# *Selective* Preservation as Good Practice

- Proposition: *Selective* and conscious archiving is a key part of a functional organization; good practice
- If so, how can that be standardized and integrated into the lifecycle? For example IETF and other SDOs specify all manner of steps around creation and operation, but infrequently what happens after

## Five Common (partial) Myths

- If it's online, it will be saved
- It's not worth saving data because...
  - nobody will be able to read it anyway
  - and/or the media will degrade
- Somebody must be saving this stuff
- Nobody wants this kind of stuff

## Steps: Real world preservation

- Papers, software, data, things etc. produced
- Occasionally, materials get formally archived by original institution.
- Most do not and are thrown out. Subset may be kept within departments or in storage, and/or kept by individuals.
- Some materials find their way to collectors, small museums, or archiving institutions
- Private collections and less stable museums aggregate or disappear

# What's out there: Historical Materials

- Personal
- Collectors
- At-risk repositories (i.e. underfunded museums)
- Corporate
- Institutional

# What's Most At Risk

- Software
- Data
- Internal documents
- Other “behind the scenes” materials

# What's out there: Net History Institutions

- Net history efforts with permanent preservation ([Internet Archive](#), [CHM Internet History Program](#), [UCLA Kleinrock Internet History Center](#), + ?),
- Permanent preservation with expertise ([Stanford Libraries](#), [Babbage Institute](#), [London Science Museum](#), etc.)
- General preservation (University libraries, government archives, misc. museums, etc.)
- Net history exhibits without permanent preservation ([HNF](#) Germany, [National Media Museum](#) UK, etc.)
- Collectors and small organizations

# CHM Internet History Program

- Program: <http://computerhistory.org/nethistory>
- [Net History Resource Guide](#)
- [Search Collection](#)
- Exhibits (physical and line): [Networking](#), [Web](#), and [Mobile](#) galleries
- [Donor offer pages](#)
- [Oral Histories](#)
- [Guide](#) (Finding Aid) to the SRI NIC collection



# Why IETF?

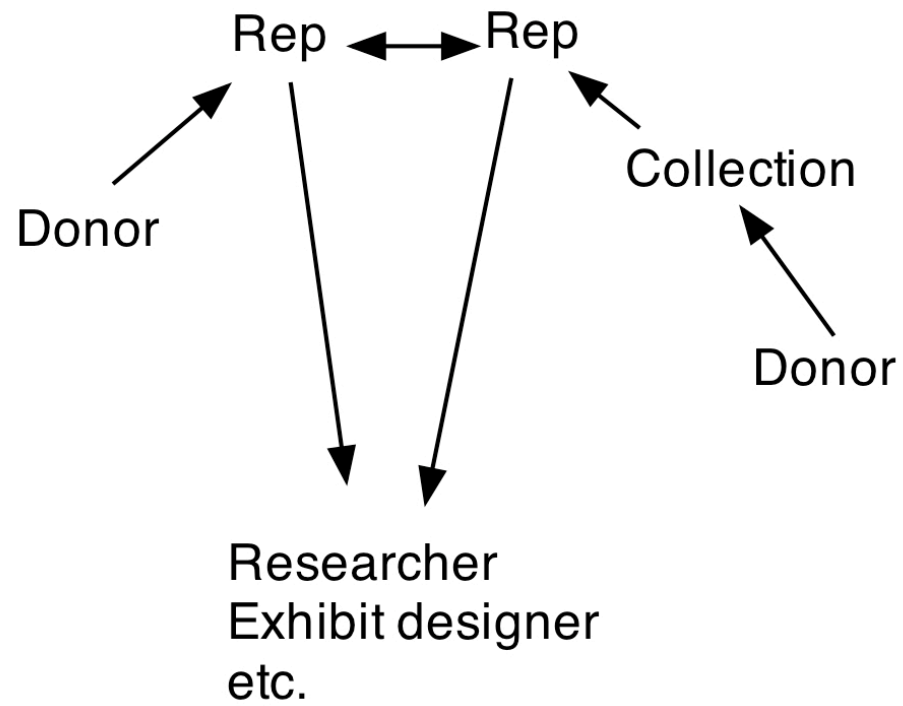
- Work here, and by participants, IS a significant chunk of net history
- They do it at every institution, company, region. As Jake said, its where the history is
- Potential to standardize good practices in a widely copied way
- International reach
- Bootstrapping/Dogfooding: People here have unique skills to create solutions that may work elsewhere.

# Not on Today's Agenda

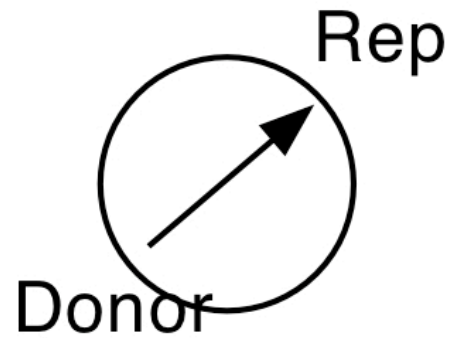
Consider only once initial goals well underway:

- Challenges of preserving networked software and data
- Standardizing tools for collaborative recording of history (i.e. wiki timelines, etc.)
- How to preserve digital documents, including transfers to future types of media
- Which specific materials to preserve
- Digitally linking materials in different archives; including issues re permanent URLs
- Online access to archives
- Authentication of digital documents

# Collection and Use



The circle is the current scope...



# IV. Proposed Goals

- 1) Collect and share information on archives (directory?)
- 2) Collect and share information on historical materials in need of preservation
- 3) Develop processes for real-time collection of key materials; RFCs a current example

# **V. Group Brainstorm**

Ways to potentially achieve goals above

# Repository brainstorm

- Geographic region by region
- By collecting type (physical objects, paper, software, images, video, etc.?)
- By collecting scope (all, only local region, only telecom, etc.)

# **At-risk materials; brainstorm**

- Personal
- Collectors
- At-risk repositories (i.e. underfunded museums)
- Corporate
- Institutional



# Real-time collection; brainstorm

Advantage: far more reliable/instantly useful than years after fact. RFCS an example.

- How to filter?
- Methods
- Repositories
- Generalizable practices, recommendations we can make? Standards?

# Current Activities, Intros

Scheduled, 3-5 mins each:

- Li Xing, Asia Internet History
- Andreu Veal, WiWiWi.org
- Brad Fidler, Kleinrock Internet History Center at UCLA
- Alexis Rossi, Internet Archive

Participants?

# VII. Discuss Draft Charter

To download text file or PDF version:

<https://pub.ietf.org/proceedings/86/history/>

Know the Past. Invent the Future



# Asia Internet History Projects

2013.2.26

Kilnam Chon

<http://InternetHistory.Asia>

2013.2.20

# 1. Objective

- Record history of Internet development in Asia.
- Form groups to write articles.
- Deliver books on Asia Internet history.
- Interview the Internet pioneers and leaders in Asia.

## 2. Milestones

2011Q4 Formed Editorial Committee and  
Advisory

Groups

2013Q2 First book on 1980s to be published

2013Q4 Second book on 1990s to be published

2017 Interview 50~100 Internet pioneers  
and

leaders

2013~4 Oral history project (under  
consideration)



# 3. First Book on 1980s

Chapter 1 Beginning

Chapter 2 The Internet in 1980s

Chapter 3 Internet-related Networks in 1980s

Chapter 4 Meetings and Organizations in 1980s

Chapter 5 Snapshots of the Internet around 1990

Chapter 6 Retrospective – Toward Second Decade

Appendix Year Table

Appendix CSNET

Appendix Selective Proceedings and Documents

Appendix Personal Essays

Appendix A History of the Russian Internet in 1990s

# 4. Second Book on 1990s

Chapter 1 APCCIRN/APNG

Chapter 2 Global Meetings and Organizations

Chapter 3 APNG Spinoffs

Chapter 4 National and Regional Meetings

Chapter 5 APRICOT and Its Spinoffs

Chapter 6 Research and Education Networks

Chapter 7 Names and Numbers

Chapter 8 Internationalization and Localization

Chapter 9 Restrospective: Toward Third Decade

Appendix Developing Country Workshop

Appendix Silk Programme

Appendix Snapshots of the Internet around 2000

Appendix List of Internet Organizations