

## **Content Coverage of PNAS in 1995 and 2001**

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### **Content Coverage of PNAS in 1995 and 2001**

➤ Statistics for the two time slices \*

Features	1995	2001
Number of documents	2505	2708
Number of unique keywords	14408	15269
Max. number of times cited	1447	155

\* Used author and publisher assigned keywords and controlled vocabulary Mesh terms from Medline

## Content Coverage of PNAS in 1995 and 2001

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➤ Data set used:

### I) To determine semantically similar documents:

➤ Document keywords for corresponding year were selected:

Criteria for selection:

➤ 500 most cited documents were selected

➤ 1995: documents cited  $\geq 90$

➤ 2001: documents cited  $\geq 10$

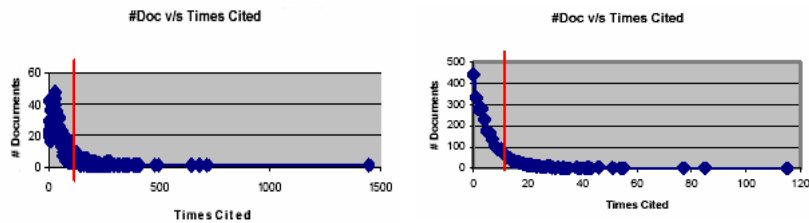


Figure: Number of citations received in 1995 (left) and 2001 (right)

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➤ Data set used:

### II) For Co-word analysis:

➤ Keywords list = Unique keyword [ Keywords + Publication title words – Stop words]

Year	#Unique Keywords
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1995	4194
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2001	5462
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➤ Keywords with frequency  $\leq 10$  are eliminated

➤ Final year wise keyword count for analysis:

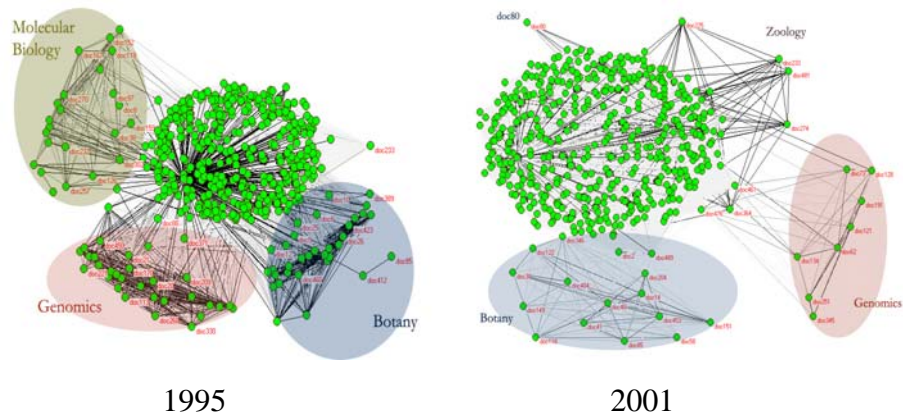
Year	#Unique Keywords
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1995	110
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2001	113
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**Content Coverage of PNAS in 1995 and 2001**

- Data Visualization: Implemented in “Pajek”
  - Semantic Document Space: show “Research domains”
  - Used Kamada Kawai algorithm to layout documents in a 2D space



**Content Coverage of PNAS in 1995 and 2001**

- Data Visualization:
  - Co-(Key)Word Space: show “Hot-topics” in the years
  - Visualized using Fruchterman-Reingold 2D algorithm

