

XSEDE Scientific Impact Metrics for the Period between Feb 1, 2021- Apr 30, 2021

Fugang Wang, Gregor von Laszewski

Apr 30, 2021

Technical Report, Indiana University, Bloomington, IN

1.1. Scientific Impact Metrics (SIM)

This appendix presents the current Scientific Impact Metrics data as of Jan 31 of year 2021. This is part of the *XD Metrics Service (XMS)* (formerly *NSF Technology Audit Service (TAS)*) effort.

1.1.1. *Summary Impact Metrics*

Table SIM-1 shows the essential scientific summary impact metrics as of Jan 31 of year 2021. The increasing values for each metric are listed in the table indicating the changes during the last quarter. By calculating such metrics periodically we can show the trends, as depicted in Figure SIM-2 and Figure SIM-3. Both show steadily increasing trends.

Table SIM-1: Overall Scientific Impact Metrics Data

	Number of externally verified unique publications*	i10-index (Number of publications cited at least 10 times)	Overall citation count*	h-index	g-index
Since 2005 (TG+XD)	19,440	11,334	709,341	275	496
Since 2011 (XD)	16,878	9,284	499,452	224	391
Change since last quarter (TG+XD)	+504	+417	+33,888	+6	+11
Change since last quarter (XD)	+501	+413	+30,286	+7	+13
* Data updated as of Jan 31 st , 2021					

1.1.2. *Historical Trend*

Figure SIM-2 and SIM-3 show the increasing quarterly trend regarding publications, citations, and other impact metrics such as H-Index and G-Index. Both suggest the increasing impact of XSEDE during the past years, based on verified unique publication count; citation count; H-index and G-index.

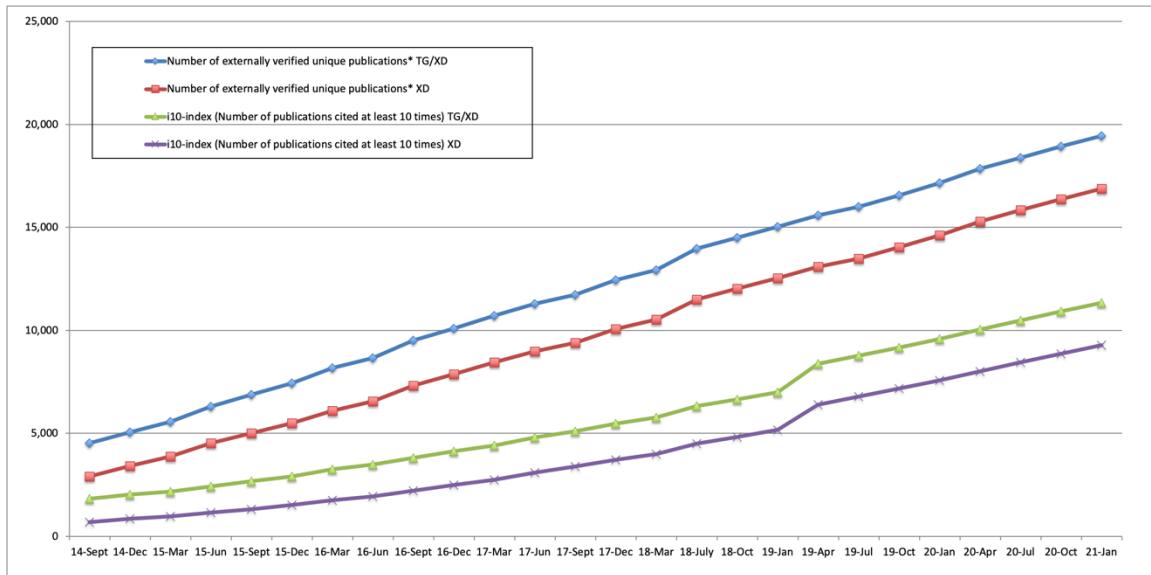


Figure SIM-2. Counts of all externally verified publications for TG/XD (since 2005) and XD (since 2011) and of those being cited at least 10 times (i10-index).

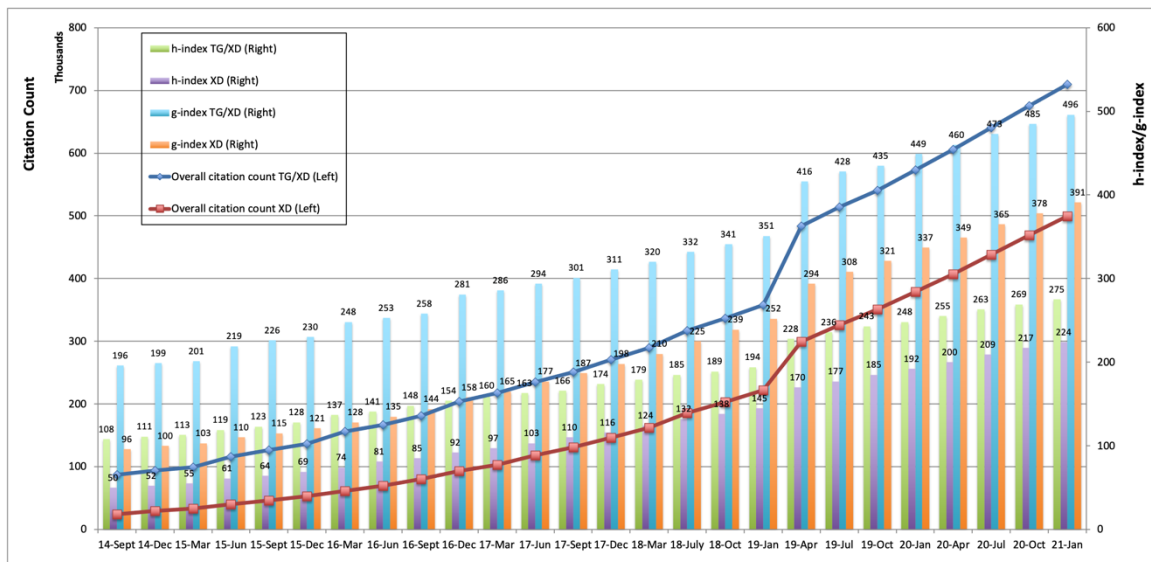


Figure SIM-3. Accumulated citation count (line, left axis) as well as h-index and g-index metrics (bar, right axis) for TG/XD (since 2005) and XD (since 2011).