

State of Research Data Management in Latin American Universities 2022

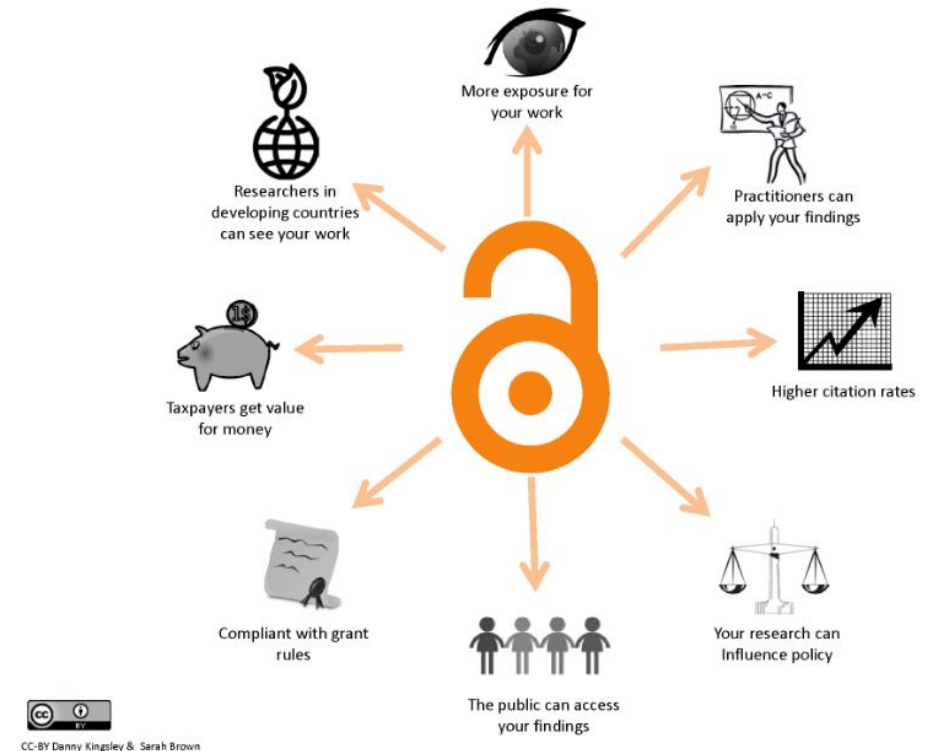
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RESEARCH DATA MANAGEMENT

- Improving the reliability of the results
- Allowing the global exchange of knowledge
- Produces greater recognition and scientific impact
- Science: public object & universal right
- To benefit society and solve major global problems
- Universities have a very important role



RESEARCH DATA MANAGEMENT



Objective: To describe the situation of RDM in teacher-researchers from some Latin American universities.

Methodology:

- Descriptive study
- November-December 2022
- Professors – researcher
- Universities
- Survey

RDM QUESTIONNAIRE

5 dimensions: 42 questions

- Data type and format 9
- Storage-archiving 11
- Infrastructure-services 5
- Ethics-legal 6
- Accessibility-use 11

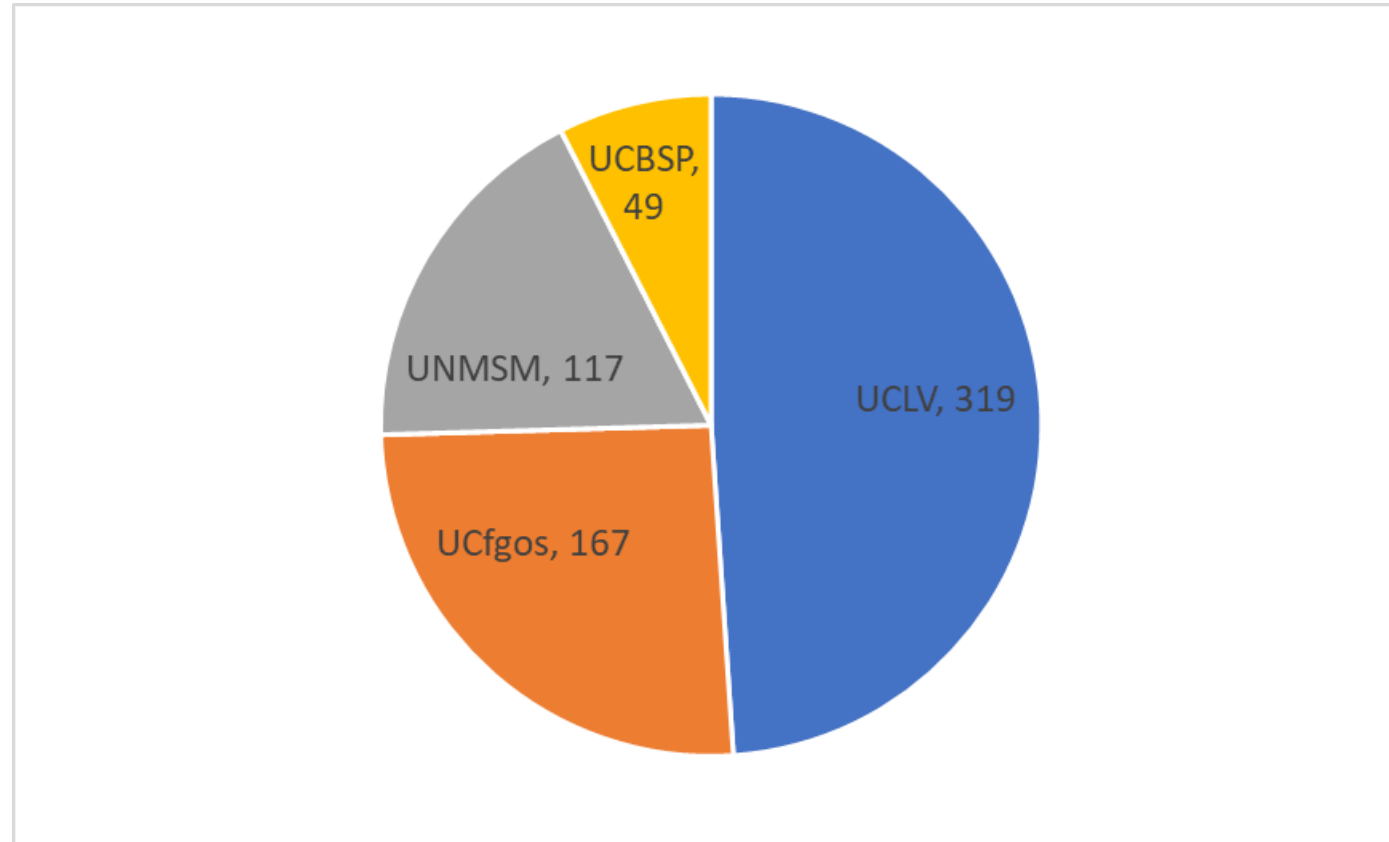


UNIVERSIDAD
CATÓLICA
BOLIVIANA

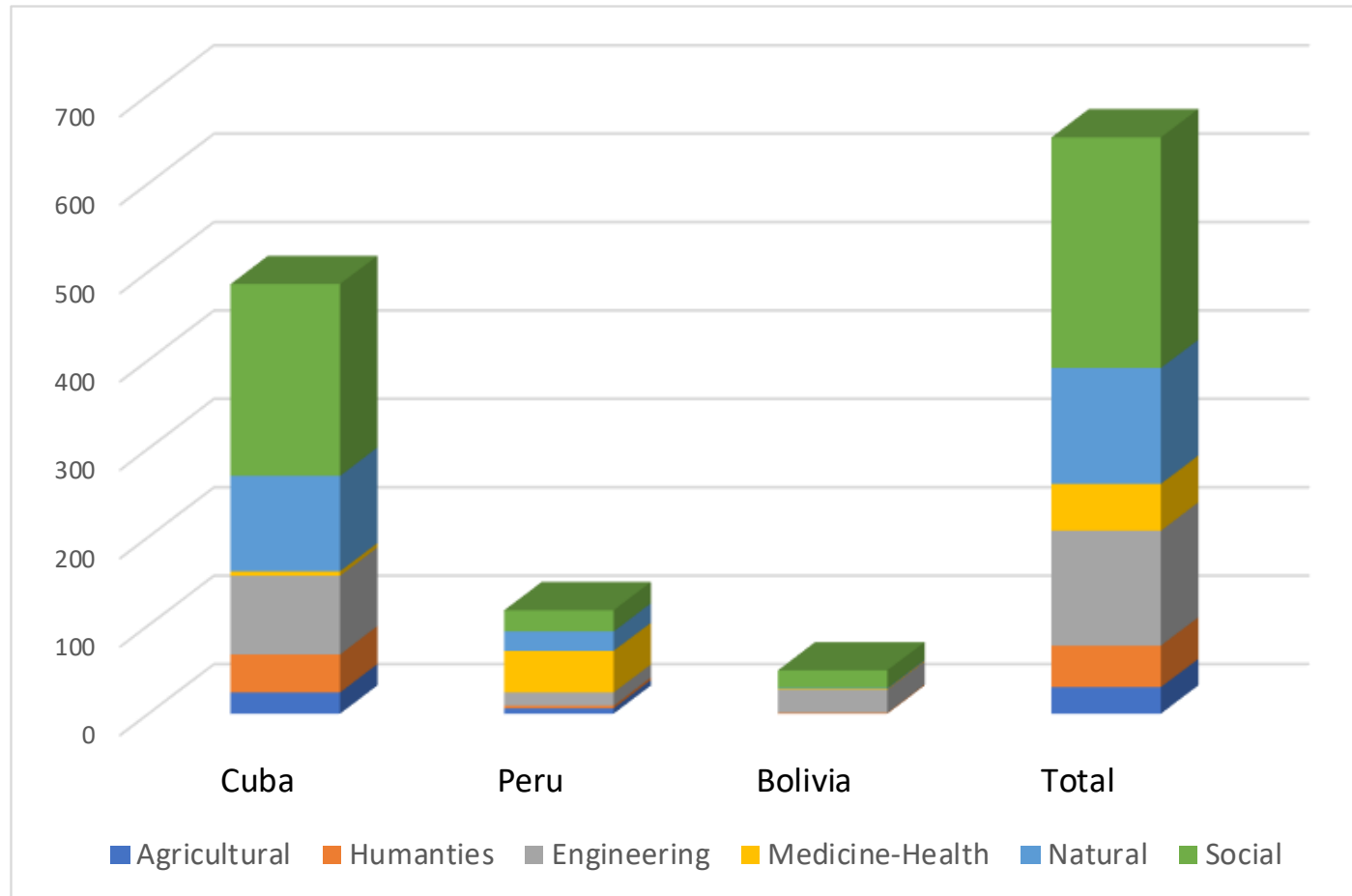
RDMS

RESEARCH DATA MANAGEMENT STRATEGY

Results: Researchers by universities



Researchers by country and area of knowledge



Dimension 1: Type and Format of research

Question	PhD student		Total		p
	n	%	n	%	
Source: Public organizations	55	37.2	221	33.9	0.340
Source: Commercial institutions	18	12.2	82	12.6	0.863
Source: Open and public data	64	43.2	285	43.7	0.896
Generate own data	104	70.3	483	73.9	0.249
Quantitative data type	116	70.8	529	81.1	0.330
Qualitative data type	121	81.8	507	77.8	0.184
Work with primary data	48	32.4	211	32.4	0.983
Work with processed data	57	38.5	307	49.1	0.017
Work with clinical data	13	8.8	67	10.3	0.496
Use laboratory notebooks	6	4.1	47	7.2	0.091
Text format	133	89.9	568	87.3	0.278
Spreadsheet format	91	61.5	378	58.0	0.325
Database format	24	16.2	152	23.3	0.020
Image data	76	51.9	344	52.8	0.696
Audio data	22	14.9	95	14.6	0.908
Video data	25	16.9	125	19.2	0.423
Applications and other type data	30	20.3	175	26.8	0.040
Documents the data	86	58.1	409	62.7	0.456
Always make a data plan	38	25.7	183	28.1	0.740

Dimension 2: Type and Format of research

Question	Bolivia		Cuba		Peru		p
	n	%	n	%	n	%	
Small to médium data volume (<100 GB)	32	65.4	216	65.0	85	72.6	0.290
Stores data in university	9	18.4	169	34.8	16	13.7	<0.001
Stores in external center	7	14.3	41	8.4	15	12.8	0.185
Stores in university cloud	19	38.8	138	28.4	22	18.8	0.021
Stores in external cloud	16	32.7	55	11.3	20	17.1	<0.001
Stores on individual devices	16	32.7	134	27.6	24	20.5	0.186
Stores in personal computer	34	69.4	333	68.5	72	61.5	0.334
All data is backed up	28	57.1	163	33.5	47	40.2	0.011
Has had data loss	23	46.9	249	51.2	60	51.3	0.689
Allways take securitu measures for the data	20	40.8	258	53.1	59	50.4	0.691
At the end, data are stored in the reseach unit	8	16.3	142	29.2	16	13.7	0.018

Dimension 3: Infrastructure and services

Question	Bolivia		Cuba		Peru		p
	n	%	n	%	n	%	
Incentivized by scientific recognition	41	83.7	477	92.0	98	83.8	0.010
Incentivized by new contacts	33	67.3	249	51.2	48	41.0	0.007
Considers data misuse as an obstacle	30	61.2	266	54.7	73	62.4	0.257
Considers processes as an obstacle	11	22.4	50	10.3	19	16.2	0.017
Considers Infrastructure problems as an obstacle	8	16.3	148	30.5	10	8.5	<0.001
Workshops support	30	61.2	348	71.6	78	66.7	0.222
Technical Assistance support	35	71.4	300	61.7	83	70.9	0.095
Repositories support	30	61.2	267	54.9	47	40.2	0.008

Dimension 4: Ethical and legal aspects

Question	Bolivia		Cuba		Peru		p
	n	%	n	%	n	%	
Uses personal or sensitive data	26	53.1	147	30.3	54	46.1	0.002
Uses open licenses	6	12.2	54	11.1	17	14.5	0.586
Uses restricted licenses	23	46.9	107	22.0	29	24.8	<0.001
No knowledge of research data legislation	37	75.5	299	61.5	92	78.6	<0.001
Was never subject to legal arguments or user agreements	41	83.7	403	82.9	92	78.6	0.787

Dimension 5: Accessibility and reuse of data

Question	Bolivia		Cuba		Peru		p
	n	%	n	%	n	%	
Generate reusable data	41	83.7	396	81.5	70	59.8	<0.001
Your data is accessible to the Public	9	18.4	68	14.0	19	16.2	0.625
Your data is accessible only to Scientists	17	34.7	315	64.8	46	39.3	<0.001
There are restrictions to access your data	38	77.6	363	74.7	72	61.5	0.012
Create passwords for your data	13	26.5	193	39.7	30	25.6	0.009
Share data by email	39	79.6	341	70.2	76	65.0	0.168
Share data in the Cloud	32	65.3	158	32.5	55	47.0	<0.001
Share data on portable devices	9	18.4	329	67.7	26	22.2	<0.001
Found adequate storage space	12	24.5	117	24.1	33	28.2	0.649
Found adequate nomenclature	19	38.8	55	11.3	34	29.1	<0.001

Conclusions:

- Most researchers generate quantitative data in low or medium volume digital format, being stored on personal computers, with high risk of loss and vulnerability
- Less than one third of the researchers keep the data at their institution after completing the research
- Most researchers obtain reusable data and share it by unsecured means
- Almost half of them generate sensitive data, but there is a lack of knowledge of legal aspects
- There is a frequent fear of misuse of research data, low awareness of legal aspects and deficiencies in institutional repositories.

A word cloud featuring the word "THANK YOU" in large, bold, black letters. Surrounding it are various translations of "Thank You" in different languages, including: GRACIAS, ARIGATO, SHUKURIA, JUSPAXAR, DANKSCHEEN, TASHAKKUR ATU, YAQHANYELAY, SUKSAMA, EKHMET, BİYAN, SHUKRIA, TINGKI, MUR, YUSUPACARAYAM, YUSUPACARAYAM, HUR, UNALCHESH, SPASIBO, DENKHAJA, HONACHALNYA, MATOR, GUR, ENDU, SIKOMO, MAKETI, MERCI, BOLZIN, PALDIES, MEHRBANI, GRAZIE, MAAKE, KOMAPSUMNIDA, GOZAIMASHITA, EFCHARISTO, AGUYJE, FAKARJE, HERASTAWNY, GAEJTHO, TAVTAPUCH, MEDAWAGSE, BAKKA, SANCO, CHAKTU, NOHON, SNACHALNYA, SPASSBO, CHAKTU, YAQHANYELAY, MADEJA, MATTERA, HUR, YUSUPACARAYAM, UNALCHESH, SPASIBO, DENKHAJA, HONACHALNYA, MATOR, GUR, ENDU, SIKOMO, MAKETI, MERCI, BOLZIN, PALDIES, MEHRBANI, GRAZIE, MAAKE, KOMAPSUMNIDA, GOZAIMASHITA, EFCHARISTO, AGUYJE, FAKARJE, HERASTAWNY, GAEJTHO, TAVTAPUCH, MEDAWAGSE, BAKKA, SANCO, CHAKTU, NOHON, SNACHALNYA, SPASSBO.