The UN recently in 4/19 asked for participation in a Data Visualization Challenge:

Here is what I made of it:

Dataset chosen from http://report.hdr.undp.org/ (Human Development Indices and Indicators)

Downloaded as „2018_statistical_annex_all.xlsx" (15 Tables, five dashboards) into an EXCEL Table
Used data HDI rank, Country, Gender Development Index (Value 2017)
Mean years of schooling (male 2017)
Mean years of schooling (female 2017)
Estimated gross national income per capita(2011 PPP $) male 2017
Estimated gross national income per capita(2011 PPP $) female 2017
Share of seats in parliament ((% held by women 2018)
Computed: Share of seats in parliament (% held by men 2018; as Difference from line above)
Labour force participation rate ((% ages 15 and older) female 2017
Labour force participation rate ((% ages 15 and older) male 2017
Added: Home Continent of Countries

	A	B	G	H	M	N	Q	R
1	Country	Continent	Estimated Gender GNI pc 2017 (2011 PPP $)	GNI pC 2017	Gender of seats in Parliament 2017	Gender Share of seats in parliament 2017	Labour force participation rate by Gender (2017) (% ages 15 and older)	Gender Labour force%
2	Algeria	Africa	FemaleGender GNI pc	4.232	female seats	21,3	female labour part. Rate	15,2
3	Benin	Africa	FemaleGender GNI pc	1.795	female seats	7,2	female labour part. Rate	68,7
4	Botswana	Africa	FemaleGender GNI pc	12.613	female seats	9,5	female labour part. Rate	65,6
5	Burkina Faso	Africa	FemaleGender GNI pc	1.289	female seats	11,0	female labour part. Rate	58,2
6	Burundi	Africa	FemaleGender GNI pc	807	female seats	37,8	female labour part. Rate	80,2
7	Cameroon	Africa	FemaleGender GNI pc	2.751	female seats	27,1	female labour part. Rate	71,2
8	CAR	Africa	FemaleGender GNI pc	521	female seats	8,6	female labour part. Rate	63,3
9	Chad	Africa	FemaleGender GNI pc	1.412	female seats	12,8	female labour part. Rate	64,8
10	Congo	Africa	FemaleGender GNI pc	4.905	female seats	14,0	female labour part. Rate	67,4
11	Congo (Dem.Rep.)	Africa	FemaleGender GNI pc	703	female seats	8,2	female labour part. Rate	71,4
12	Côte d'Ivoire	Africa	FemaleGender GNI pc	2.529	female seats	9,2	female labour part. Rate	48,1
13	Egypt	Africa	FemaleGender GNI pc	4.081	female seats	14,9	female labour part. Rate	22,2
14	Ethiopia	Africa	FemaleGender GNI pc	1.304	female seats	37,3	female labour part. Rate	77,2

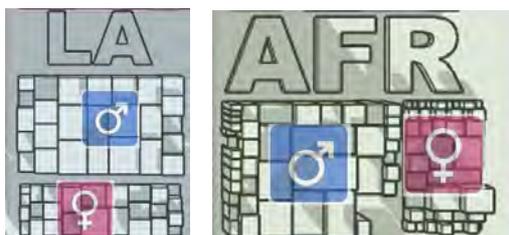Data used (green) Number of lines: 317)

Cleaning up /Use of date:

With the idea of using the UN data for (*a CAD construction as input for*) a **3D printed data sculpture on gender and countries´ inequality**, some countries with a) lacking data b) very small values had to be omitted; due to the fact that dimensions less than 1 mm cannot be printed in (physical plastic sculpture). Typical countries omitted were Small islandsand typical „non giving data states" like Monaco, Andorra, Liechtenstein. Therefore some 190 countries hade been reduced by me to some 158 countries of all continents. The essence of results will not be touched by this move.

My aim was to push the boundaries of inequality data visualisation. Usual visualisation are on 2D, i.e. „Screenland". I present selected UN gender issues/data in a mix of graphic **and physical** representations: Voice (male/femalse seats in Parliaments),national income per capita all cpuntries(male/female), labour force participation by gender.
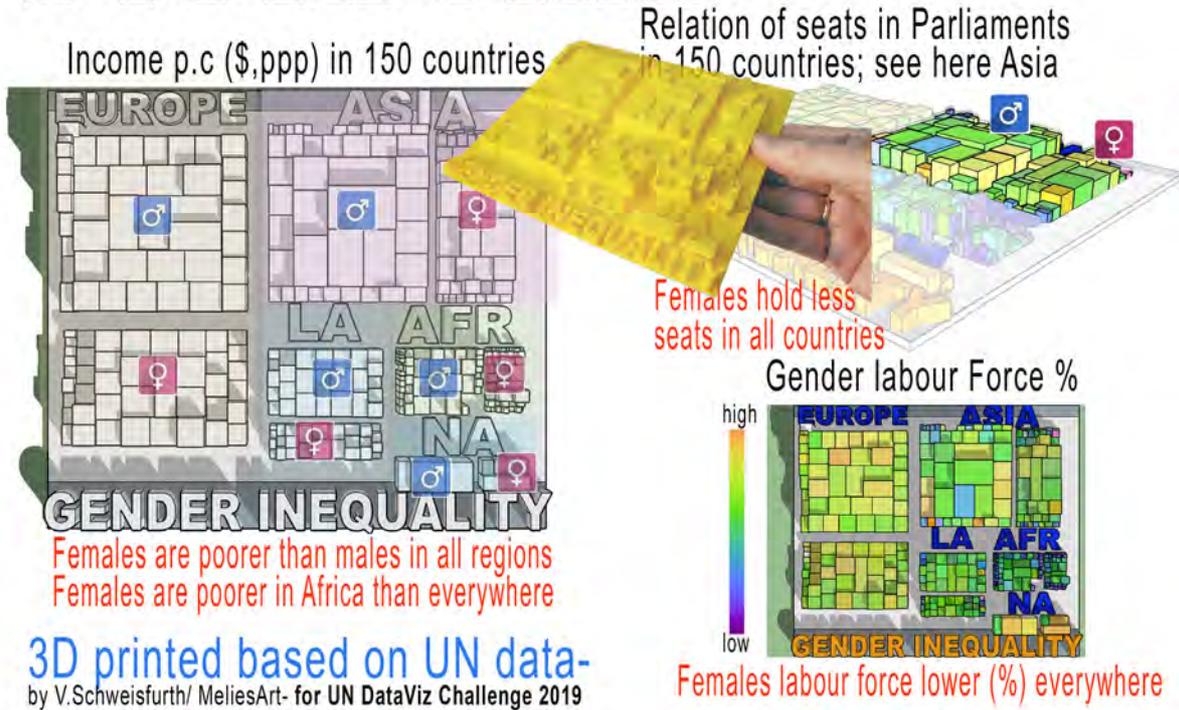The underlying CAD model allows to also deliver animations and mixed media (AR/VR) representation with a special flavour of interactivity: No Tableau like- clicks to get answers, **but** seeing and touching a data object from different angles and exploring inequalities by groupwork; also keeping the subject of „inequality" as a physical object on your desk for years. This also allows to constantly reflect the understanding for the topic of Inequality and to „**argue from the jacket or handbag**" - where the sculpture can travel along next to the wallet..

Each continent´s estimated gross national income per capita (2011 PPP $) for 2017 are shown as rectangles, by males and females. (xy). For each continent, womens´ incomes are lower. The sum of the regional blocks offers a guess on the overall relations. Amazing the Latin America case: Men have about the double income p.c than women; the same is true for Africa, on a very much lower level:


Additional background explication is here:

IT'S A MAN'S WORLD

Income p.c ($,ppp) in 150 countries

Relation of seats in Parliaments in 150 countries; see here Asia

Females hold less seats in all countries

GENDER INEQUALITY
Females are poorer than males in all regions
Females are poorer in Africa than everywhere

3D printed based on UN data-
by V.Schweisfurth/ MeliesArt- for UN DataViz Challenge 2019

Gender labour Force %
high
low
Females labour force lower (%) everywhere

Given the fact that on the base of this visualization for the UN Challenge, there is CAD design as a base that we can use as well as for Charting, 3D prints, animation and Mixed Reality (see an example of AR use – with stretched z axis)- flying on my terrace at home.

Inequality data visualisation
as Augmented Reality
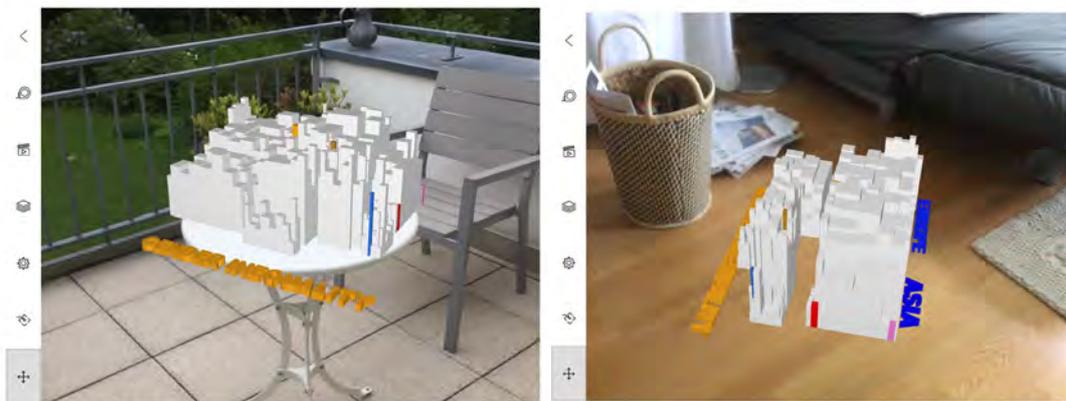
Sculpture shows 150 countries (two environments, two views) with income/capita ($ male/female as **xy**) and seats in parliaments (male/female as **z**)
Dataset chosen from http://report.hdr.undp.org/ (Human Development Indices and Indicator

made with MacBookPro/ IPad and Sketchup App by Volker Schweisfurth 5/19

For details on the range of visualization of the technology, you might like to see two articles of mine under

https://www.linkedin.com/pulse/can-data-float-digital-ocean-volker-schweisfurth/
https://www.linkedin.com/pulse/data-visualizations-jellies-ocean-volker-schweisfurth/