The 21st Century Advent of “Universalization”
What is Universalization?

“As both a process and an end in itself, universalization implies an increasingly pervasive, abiding and singular focus not only on global issues per se but on social, economic and cultural opportunities extending into our solar system, our galaxy, and well beyond.”

Url: wikipedia.org/universalization
Globalization to Universalization
One World Knowledge Economy

Established, emerging and developing countries part of a GLOBE’AL agenda
Global Economy
Amassing of Cultures
Climate Change
GLOBALIZATION
climate, health, energy, wealth, water distribution, food security, industry and governments
BUT one within a universe
The Past

A few who held ‘space secrets’
Bringing Space into our home
Space in the classroom
As a future profession

Commanding a space ship is no longer “just a wild little kid’s dream but actually something Canadians do”.

Col. Chris Hadfield
ALL over the world
The Present: ‘space’ is the norm no longer for the few/elite...
Interplanetary Internet
Vince Cerf
Corporate and Government Interest in Space

- Space Debris
- Security Operations
- Satellite Refueling
- Lunar Access
- Planetary Defense
- Earth Observation & Monitoring
- Cubesat Deployment
- Space Tug

The MX-1 is not just a lunar lander – it is a spacecraft workhorse with many markets.

Flexible Upper Stage for Commercial Launchers
Citizen interest – living in space
Panacea to development
Escape to the galaxy

"I'm looking for a secure position in a less competitive academic environment."
Who is watching those who are watching activities on Earth?
And there is a lot of them...
Hmmm...
One of possibly 17 billion planets
Who are our neighbours?.... within 20 years we just might know
Earth’s neighbourhood
“A Suburb of the Milky Way” (Shields, 2007)

We know how clean our ‘earth’ is!
Garbage in Space
Its intense...
Garbage on Earth

The Great Pacific Garbage Patch

- The patch is made up of plastic, including fishing nets, micro-pellets, and other debris.
- It is estimated that 90% of the garbage in the patch is plastic, with 80% of that coming from land-based sources, including cruise ships, fishing vessels, and shipping.
- It covers an area roughly twice the size of Texas.
- The patch contains 16% of the world's annual 200 billion pounds of plastic produced in the ocean.
- Cleanup of the patch is difficult due to its size and the presence of many different types of debris.

Estimates of Decomposition Rates

- Cardboard Box: 2 Months
- Plastic Grocery Bag: 10-20 Years
- Styrofoam Cup: 1 Year
- Aluminum Can: 10 Years
- Glass Bottle: 1,000 Years

SOURCES:
- Scripps Research Institute
- Wikipedia.org (Great Pacific Garbage Patch)
And its intense...

From our planet’s point of view, there’s no throwing garbage out. Because there is no “out”.

Bank of the Planet.
Investments generating information and actions.
www.bancodoplaneta.com.br
We have un-addressed global issues that have the real potential to be destructive and no way to bring people together and perhaps no will yet.
Happy Earth Day

I'm with Stupid

MANKIND
Globalization to Universalization

‘Nation building or World building’
Current Approach

Competition and firsts...
Either we remain world’s apart for planning and decision making
Alternative approach
Cooperation
Who is Governing the Galaxy
Who knows how? Who is thinking about it?
Nearly 200 space agencies and centers around the world
UNITED NATIONS TREATIES AND PRINCIPLES ON OUTER SPACE
Universities

• About 70 countries with Aerospace Engineering University (Bachelor, Masters and/or PhD Programs)
• And universities focused on Space and ‘Universal’ Problem Solving
Space related programs in 11 Countries

- Focusing on Technical Aspects: 20, 91%
- Focusing on Non-Technical Aspects: 2, 9%
Where is the public scholarship and dialogue on governance of space?

–For the sake of Space
–For the sake of our Earth
Universal Opportunities & Challenges

TALENT
All hands on deck
Universalization
putting the puzzles together
- together -
It is time for ‘Space Relations’?
The new Sovereign nation of Celestial Space

J.P. Mangan, Chicago - application to the UN in 1948
In who’s hands lies our destiny?

Oh what to to, what to dooo?
The next generation
It’s no longer Global Issues ...
in this Century
They are Universal ones ...