



# A CHANCE FOR ALL

NOOVO SATELLITE OTT

MAY 2024

# AGENDA

- The Problem
- The Solution
- The Benefits
- How?
- The Impact

# THE PROBLEM



# The education challenges in emerging market

- ❖ **Limited Access:** Poverty, distance, transportation, cultural barriers..
- ❖ **Inadequate infrastructure:** Classrooms, electricity, clean water, sanitation, technology..
- ❖ **Teacher shortage and Quality:** Large class sizes, absenteeism, lack of training, rural vs cities..
- ❖ **Low education Quality:** Material, curricula, methods..
- ❖ **Gender Disparities:** Girls face barriers to access education (culture, early marriage, domestics responsibilities, Lack of female teachers, safety, sanitation during period..)
- ❖ **Cultural and Language Barriers:** Teachers with Children, Curriculum with Children (marginalization)
- ❖ **Poverty and child labour:** Poverty force children to drop out schools to contribute to family income.
- ❖ **Inequality and Discrimination:** Socioeconomic disparities, ethnic discrimination, and inequitable distribution of resources
- ❖ **Health and Nutrition Challenges:** Poor health, malnutrition, and disease burden can negatively impact children's ability to attend school regularly, concentrate in class, and learn effectively.
- ❖ **Instability:** War, economy, natural disaster, epidemic..

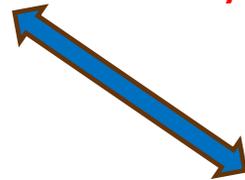
# Remote eLearning: the wrong solution

## Cloud



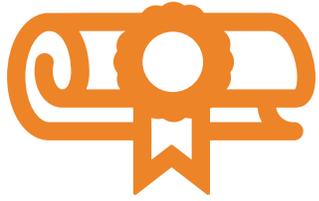
### Internet dependency !

- Availability
- Performance
- Affordability



While remote e-learning holds promise for education, its reliance on internet access creates yet another barrier for those who need it most. Without equitable access, marginalized communities face further injustice in accessing quality education.

➔ **Closing the digital divide is crucial to ensuring fairness and opportunity for all learners.**

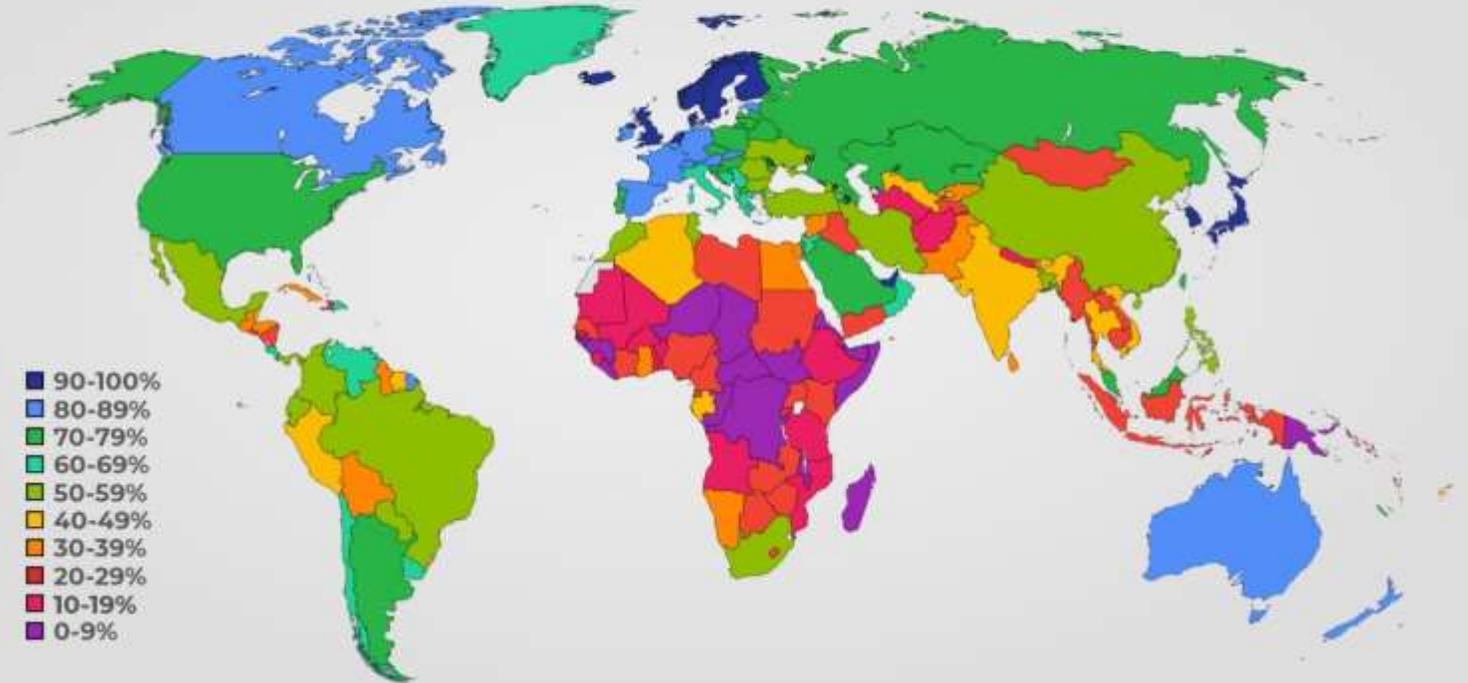


**2,8 million  
unconnected  
schools !**

**2,2 billion  
students with no  
internet at home!**

\* According to UNICEF

## Internet Penetration Rate by Country



# THE PROBLEM

# EDUCATION

The digital divide has widened inequalities and isolated generations of children from education and opportunities. Governments and NGO are limited in providing eLearning to children unable to attend school.

Region	School-age children 3-17 years old unconnected at home
West and Central Africa	95% - 194 million
East and Southern Africa	88% - 191 million
South Asia	88% - 449 million
Middle East and North Africa	75% - 89 million
Latin America and the Caribbean	49% - 74 million
Eastern Europe and Central Asia	42% - 36 million
East Asia and the Pacific	32% - 183 million
<b>Global</b>	<b>67% - 1.3 billion</b>



“Two thirds of the world’s school-age children (2,2 billion children aged 3 to 25 years old) have no internet access at home”

UNICEF

# THE SOLUTION



**“We deliver interactive eLearning where internet cannot”**

## **LOCAL ELEARNING:**

**“Engaging and Interactive eLearning  
for all our children wherever they live”**

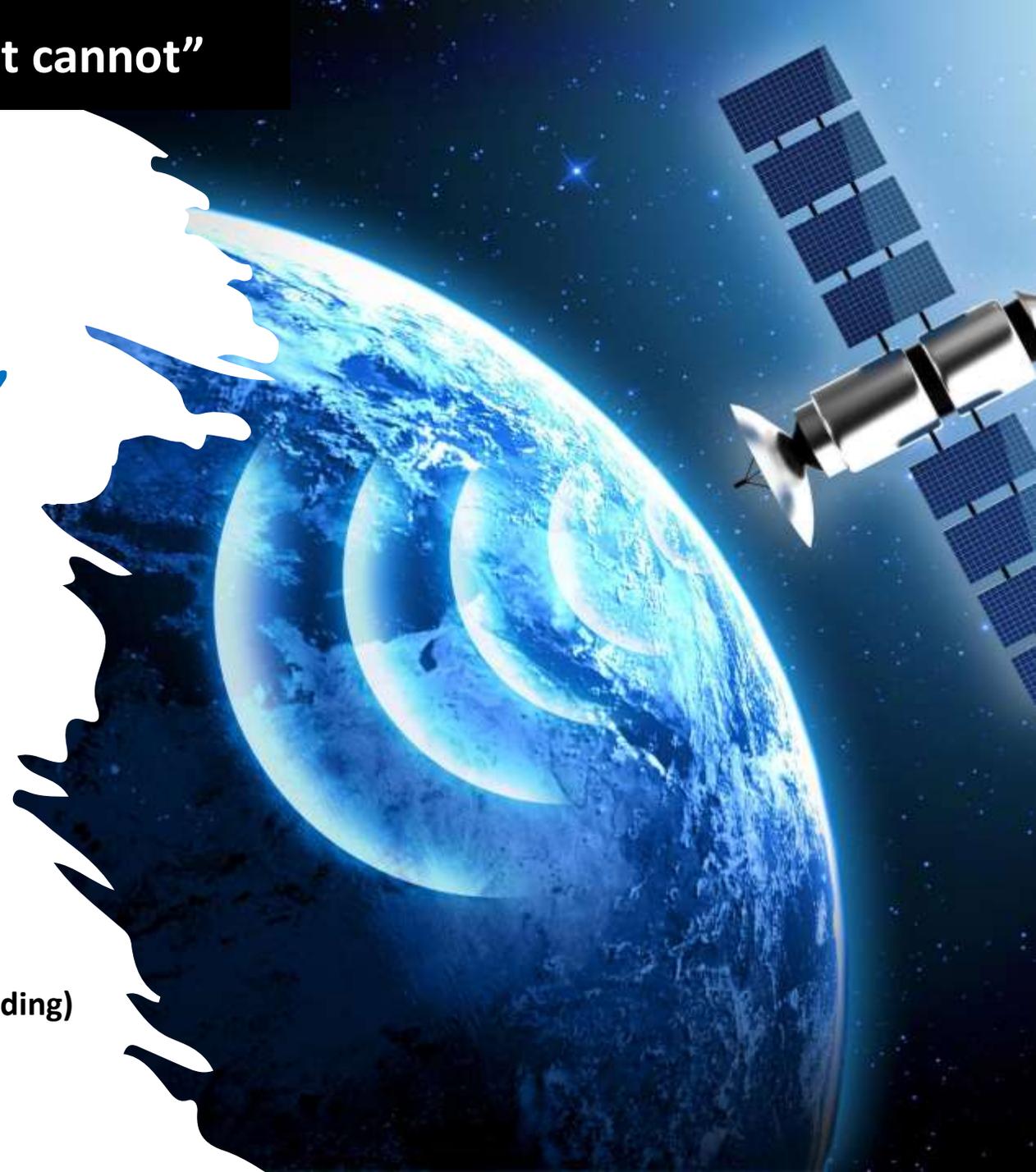
**Anywhere**



**Local streaming with  
Learning Management System**



**Smart Devices  
(Streaming or Downloading)**





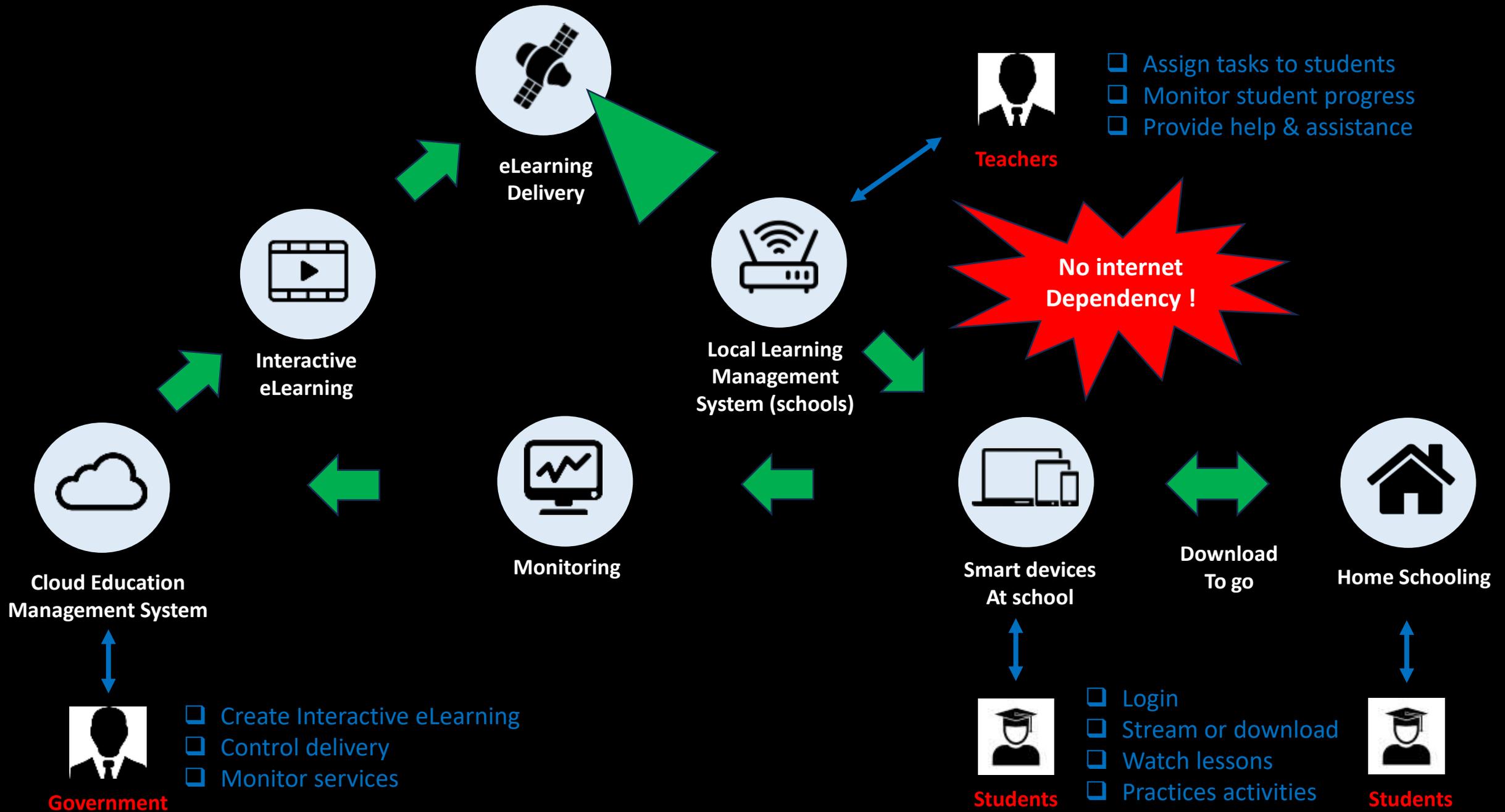
**From  
Internet**

**Via  
Satellite**

**Through  
Gateways**

**To Smart  
Devices**

**Addressing Digital Injustice in Education**



# THE BENEFITS



# “Remote eLearning”

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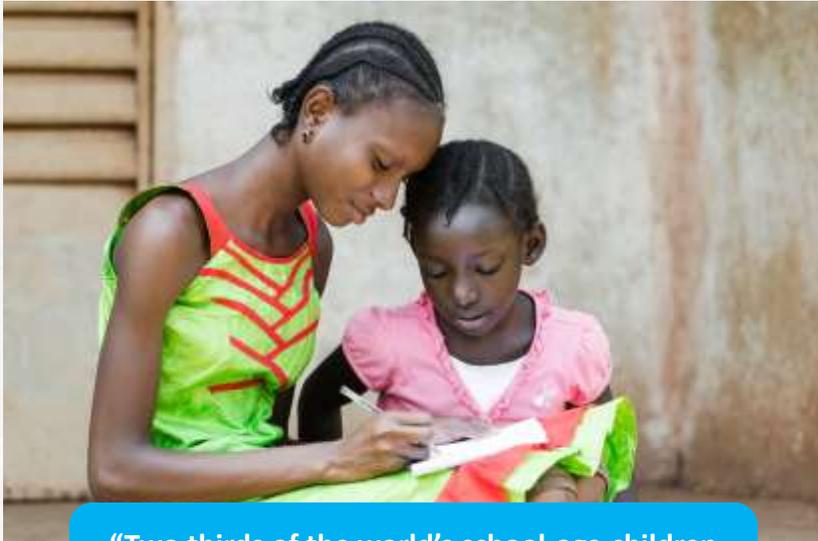
V/S

# “Local eLearning”

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## The problems for emerging market:

- ✓ Require internet access (online)
- ✓ Require high bandwidth for video streaming
- ✓ Data is expensive for children
- ✓ Internet is not available everywhere
- ✓ Internet is not affordable for all



“Two thirds of the world’s school-age children have no internet access at home” - UNICEF

## The solution: Local eLearning

- ✓ Can reach any places (Satellite coverage)
- ✓ No need of internet (Satellite delivery)
- ✓ No infrastructure dependency
- ✓ High video streaming capability (WiFi bandwidth)
- ✓ No data cost for children (100% Free)
- ✓ For children but also for adults: Civic education, information, training, health, farming..

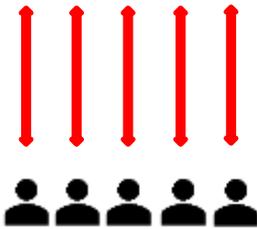
“As most kids cannot access or cannot afford remote eLearning, we deliver high quality eLearning to them”

*Jean-Christian Martin-Garrin (Noovo CEO)*



# Internet OTT Unicast

On Line CDN

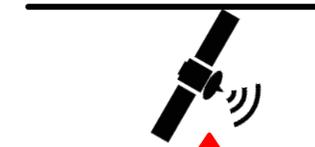


UNICAST  
"One to one"

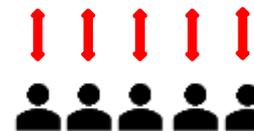


V S

# Satellite OTT Multicast



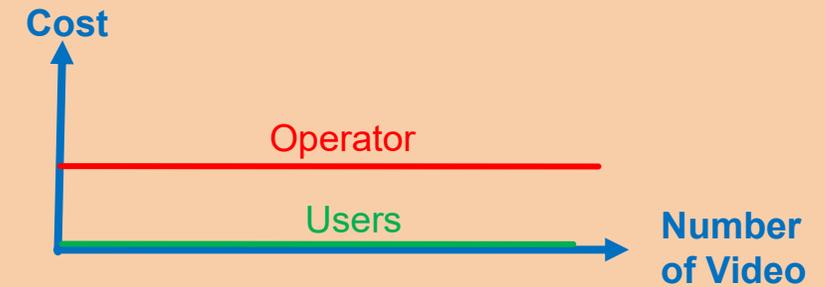
Multicast  
"Once to many"



Local  
unicast



- ✓ Require high internet bandwidth and data
- ✓ The cost for both operators and users increases as the number of videos streamed increase.



- ✓ Offer high video bandwidth (Local WiFi)
- ✓ Fix cost for operator (broadcast & Multicast)
- ✓ No cost for end users

## Complementary with internet

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Our solution does not replace internet but complement it by unloading it from video streaming.

- ✓ ADSL, VSAT and 4G cannot stream video to hundreds of children.
- ✓ Bandwidth is limited and can be used for other purposes (surfing, email, chatting..)
- ✓ Children can be lost on the internet when you can keep control on their education on our close eco-system



Entertainment & Internet



### Broadcast OTT

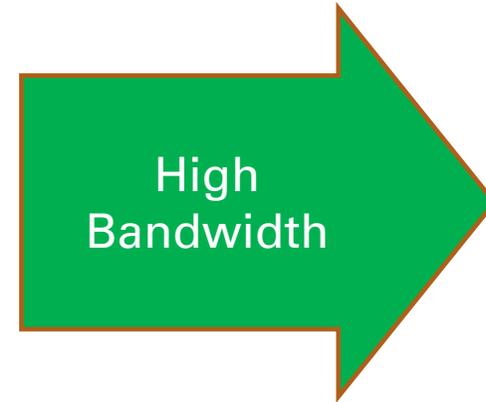
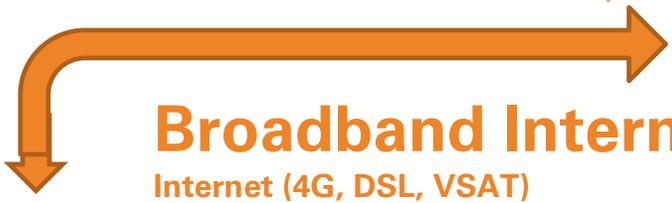
- High bandwidth
- Cost effective (multicast)
- ➔ Used to deliver entertainment

+



### Local Storage:

- Store Media from Satellite
- No latency, no buffering
- No data cost



Entertainment & Internet

### Broadband Internet

- Internet (4G, DSL, VSAT)
- Limited bandwidth
  - Limited data
  - Expensive (Unicast)
  - ➔ Used for bidirectional communication, Surfing, email, chat, monitoring, survey...



### Local WiFi

- Internet + Entertainment streaming
- High bandwidth
- No data limitation
- No extra cost

**HYBRID SOLUTION: INTERNET + SATELLITE OTT**

# Monetize the platform by diversifying applications:

1. **Students Education:** School, Universities, home
2. **Adult Training:** health, farming, up-skill, long life learning
3. **Transportation entertainment:** airport, train & bus station, plane, train, bus, bus shelter, boat..
4. **Hospitality entertainment:** Hotel, restaurant, bar
5. **Public places:** Hospital, community centers
6. **Remote places:** villages, parks, military camp
7. **Corporations:** remote offices, Oil platform, mines
8. **Association:** NGO, Churches..
9. **Homes:** DTH, DTT, MiFi
10. **Contribution:** delivery content to the edge network for telecom, ISP, terrestrial broadcasters..



RETURN ON INVESTMENT (ROI)



HOW?



# Amazing kids experience

Kids need to have fun learning



# Engaging and Interactive eLearning

## Linear:

- Live TV channels, Radio
- Live events, Real time information



## None Linear:

- Learning Management System (Moodle and others)
- Video, Audio, eBook
- Select between 50+ interactive activities
- Web pages (HTML), Application (APK)
- And more

## Content sourcing:

- Use our catalog of content (Extra to your curriculum)
- Use our EMS to create your own eLearning content



From Static

To Video

With Interactive  
activities

**Interactive activities (30+):** Quiz, Interactive Video, True & False, Multi-Choices, Fill the blank, Collage, Flash cards, Drag & Drop, Memory Games, Image Pairing, Images Placing, Mark the words, word finding..





# Education Access Points to stream or download

- ✓ Schools, Universities
- ✓ Communities' centers
- ✓ Remote villages
- ✓ Transportation hub
- ✓ Public Places..





Local streaming with Learning Management System



Teacher playing Media On class TV screen



Students Smart Devices Streaming and Downloading



“The highest quality of teaching everywhere”



# Interactive eLearning at school



# The solution for Home Schooling



**Education Access Points**  
(schools, homes, Public places)



**Homeschooling & Homework**  
(without internet)

## How?

- ✓ Teachers assign tasks to students
- ✓ Students download lessons and activities from school
- ✓ Students work at home on their Smart devices (lessons and practices)
- ✓ Student's progress is reported to teacher via school LMS

## Benefits:

- ✓ Home-Work (evenings, week-ends, holidays)
- ✓ Home-Schooling (Lock down, Natural disaster, lack of school or teacher)



**POSITIVE**   
*IMPACT*





# SUSTAINABLE DEVELOPMENT GOALS



Long term positive social impact via free education to ALL !

