



India: Virtual Human Initiatives

2nd Virtual Human Summit
Barcelona, 23-24 October 2025

Origins

Proof-of-concept presented at
BioIT 2022

In 2021 OHSL working with All India Institute of Medical Sciences Delhi undertook a proof-of-concept for Digital Twin in Neuro Oncology for Precision Medicine in partnership with:

- C3.ai
- Microsoft Research
- Frederick National Laboratory for Cancer Research (FNLCR)
- NIH Science and Technology Research Infrastructure for Discovery, Experimentation, and Sustainability (STRIDES)
- Arizona State University
- Indian Institute of Technology Delhi

This has continued on to partnership with

- AllMS Delhi, working with OHSL, to develop a full scale deployment of digital twin in a clinical situation for neuro-oncology and precision medicine
- C-DAC Accelerating Biology 2025 Symposium and India's National Supercomputing Mission creating access to digital twin tools and compute for medical researchers
- January 2025 lecture tour of Peter Coveney has led to Apollo Group of Hospitals deciding to develop and deploy digital twins across its hospitals in India
- MD Anderson Institute of Data Science (MDA/ISDO) sending Eric Stahlberg to work with Apollo Ayurveda hospitals to develop and deploy digital twins in their clinics
- Indian Institute of Technology Kharagpur partnering with OHSL and Digital twin Consortium (DTC) to establish an International Centre of Excellence on Digital Twin

Virtual Human Open Stack



Virtual Human Open Stack

Biomedical scientists are not happy working with proprietary models because of their inherent need to look 'under the hood' at the algorithm in the model

Several research groups around the world are working on digital twin software and models which are mostly open source or where the software creator is willing to allow the medical researcher to have access to the necessary internals

The cost of **commercial digital twin solution is often unaffordable for medical researchers**

OHSL and DTC working with the Indian Institute of Technology Kharagpur, Apollo Research Academy (ARA) and several members of **Virtual Human Global Alliance** is initiating an ongoing research program to develop the **Virtual Human Open Stack**. This is being designed as an international open science effort every interested Individual/institution would be able to fully engage

Funding

...work in progress, several promising ongoing discussions



Thank You

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How to use this template

Create a copy - File > Make a Copy

Editing

Case 1: *Editing existing slides*

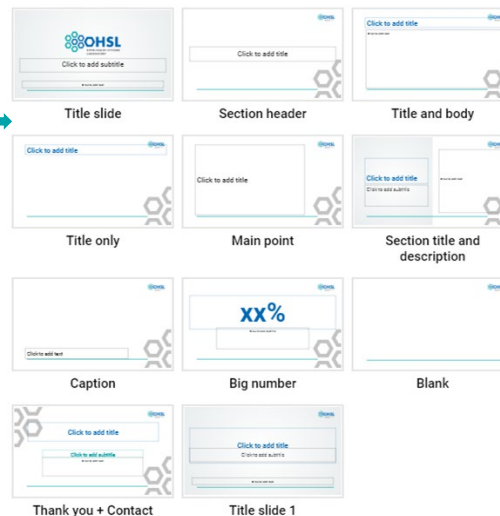
Create a copy of the page before editing.

Case 2: *Creating new slide*

Click on the arrow  and select the layout of your choice 

Points to remember:

- Follow the instructions for typography, use of elements, image aspect ratio, colors, and use of caps and italics as mentioned in the following slides
- Avoid using text only slides
- Leave at least 30% of white space for all the slides
- Number your slides



Typography

Font Weight

H1 - Open Sans Bold

H2 - Open Sans Semibold

H3 - Open Sans Normal

H4 - Open Sans Light

Font Size

32

for Title

23

for
subtitle

14

for
body

10

for
body
inside
element

Elements

Use the rectangles for the following purpose

Alt Text

Image

Title text

Click to add subtitle
text

##

Numeric Data

Important points

Elements

Arrows



Social Media Icons



Image

Image aspect ratio to be used:



Colors

- Do not use colors for body text.
Exception: to highlight words
- Use **this color** for titles/highlights
- Use **this color** for subtitles, headers within the body/highlights

- Use white text on any colored background or object

- Always pair colored text with grey text

Ex.:

do

Hello World!

How are you really doing? Lorem ipsum is a pseudo-Latin text.

don't

Hello World!

How are you really doing? Lorem ipsum is a pseudo-Latin text.

Caps and Italics

DO NOT USE ALL CAPITAL LETTERS

- Makes text hard to read
- Conceals acronyms
- Denies their use for EMPHASIS
- **Bolden** the text instead or use **color1/color2** to highlight the text

Italics

- Use for “quotes”
- Use to highlight thoughts or ideas
- Use for book, journal, or magazine titles