Survey on 3D printing for Accessible Format Producers

# About You

Role:

* Multi-format producer
* Specialist 3D printing producer
* Accessible formats manager or team leader
* Proofreader
* Other \_\_\_\_\_\_\_

Sector:

* Education department
* School for the blind
* Not-for-profit blindness services
* Commercial

Location (country and state): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name and contact details (if you are willing to discuss your experiences with the researchers via email, phone or zoom): \_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Your Experience with 3D Printing

What year did you first using 3D printing (either at home or at work)? \_\_\_\_\_\_\_\_\_\_\_\_\_

What aspects of 3D printing have you performed?

* Finding existing models
* Designing new models
* Printing
* Fixing printer problems
* Sharing my knowledge about 3D printing with others

How would you rate your experience level with 3D printing for touch readers?

* Beginner – I can only perform basic tasks or I need a lot of assistance
* Intermediate – I am comfortable performing most tasks and only need assistance on occasion
* Expert – I am confident and able to provide assistance to others

# 3D Printing for Touch readers

## Requests

How often do each of the following scenarios occur in the request stage for 3D prints?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Scenario | never | rarely | sometimes | often | always |
| Clients/teachers place a request for a specific model (from our catalogue or from an online source). |  |  |  |  |  |
| Clients/teachers request a model that is easy to find or to create. |  |  |  |  |  |
| Clients/teachers place a request but negotiation is needed. |  |  |  |  |  |
| Clients/teachers place a request that is not practical for 3D printing. |  |  |  |  |  |
| We design a new model based on an informal suggestion by a teacher, practitioner, touch reader etc.  |  |  |  |  |  |
| We design a new model based on the curriculum. |  |  |  |  |  |
| We design a new model to replace existing materials that are too old or too expensive. Mode |  |  |  |  |  |

## Model selection

What are the most important considerations when you are selecting a 3D model to print? (choose a maximum of 3 items)

* The model has been specifically designed for touch readers
* Features on the model are sufficiently spaced out so that they can be distinguished by touch
* The model cannot be obtained through other means (e.g. a similar item is not available for purchase)
* The model is novel or engaging
* The model is likely to be useful for more than one student
* There is positive feedback from other people who have already printed the model
* Other \_\_\_\_\_\_\_\_\_\_\_\_

Which of the following considerations would prevent you from printing a particular 3D model? (choose a maximum of 3 items)

* The model is too large
* The print time is too long
* The model has a lot of pieces that need to be printed individually
* The model does not look sturdy
* The model will require a lot of supports and clean up
* The model would require work after being printed, e.g. construction, painting or labelling
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Production

For each of the following use cases, please indicate the percentage of 3D prints that you send out. The total should add to 100%, i.e. please think of the primary use case for the 3D prints.

* Helps teach the curriculum – replicating a diagram from a textbook, worksheet or test
* Helps teach the curriculum – for general concepts
* A classroom tool (e.g. tactile ruler, tactile grid, magnifier stand, school map, etc.)
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are the top 5 most popular 3D models you have been asked to produce?

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are the top 5 3D models you would recommend for touch readers?

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Of the 3D models that you print, what percentage are interactive or have multiple pieces? \_\_\_\_\_\_\_\_\_%

Which of the following post-production tasks have you performed with your 3D prints?

* Removing supports and rafts
* Smoothing
* Painting
* Adding textures
* Adding braille labels
* Adding audio labels
* Adding Velcro or non-stick backing
* Inserting magnets
* Attaching parts with superglue or acetone or similar
* Attaching parts with screws or similar
* Other \_\_\_\_\_\_\_\_\_\_\_

## Viability of 3D printing for touch readers

What are the biggest barriers to the use of 3D printing for touch readers? (Choose a maximum of 3)

* Teachers don’t know what to ask for
* There is a lack of good models available for printing
* Modelling requires a lot of expertise
* Modelling requires a lot of time
* Printing takes a lot of time
* Lack of access to 3D printers
* Printer errors
* Printer maintenance
* Storage
* Plastic waste
* Durability
* Other \_\_\_\_\_\_\_\_\_\_\_

What do you think is the future for 3D printing for touch readers?

* 3D printing is a fad will not last
* 3D printing will remain a niche service
* 3D printing will become more popular
* 3D printing will become as common as tactile graphics