



Multimodality & Natural Interaction

Ludovico Novelli, Optical & Sensing Technologies
lnovelli@logitech.com

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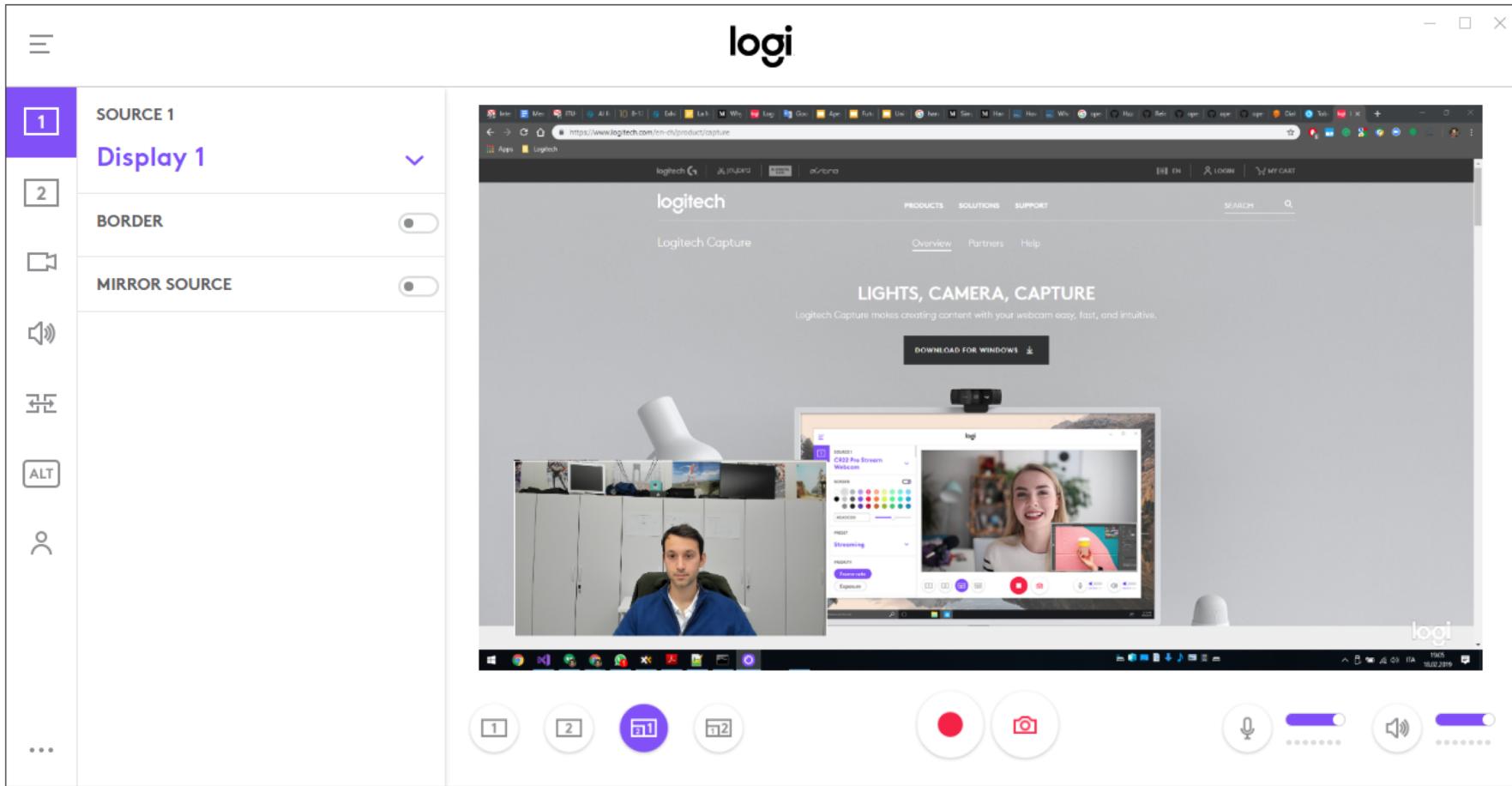


Many inputs

- Mouse
- Keyboard
- Eyes
- Voice
- 2D Hand Gestures (on touchpad)
- 3D Hand Gestures (in the air)
- Body Gestures and movements
- User state (stress level, current task, ...)

Research Space

Facilitate Streaming



What can we facilitate??

- Start/stop recording
- Zoom
- Change camera
- Add text/overlay

- Other ideas ??

Tools

APIs and detectors

- OpenPose (body+hand detector)
- DialogFlow (voice detection)
- Tobii 4C (eye-tracking)

→ These are just examples...Feel Free to find new tools and detectors!!

Streaming Software

- Logitech Capture (no open APIs, but you can trigger actions by simulating key combinations, e.g. ALT+R)

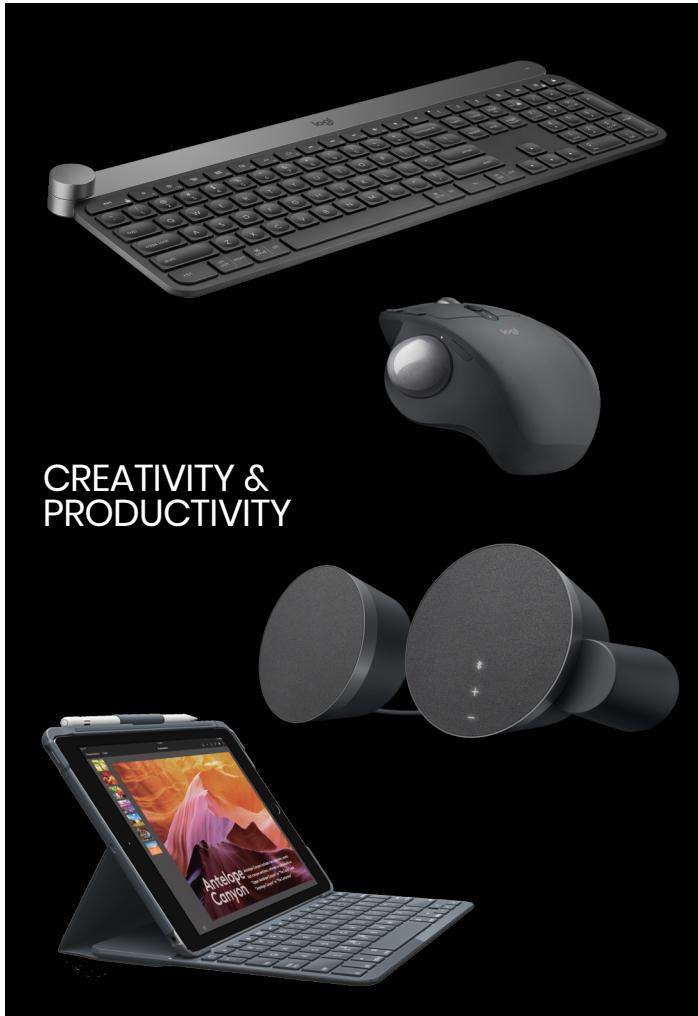
Key Combinations

The screenshot shows the Logitech Capture software interface. On the left, a sidebar lists key combinations:

- 1 START/STOP RECORD **alt + R**
- 2 MUTE/UNMUTE MIC **alt + N**
- MUTE/UNMUTE SYSTEM SOUND **alt + M**
- TAKE A SCREENSHOT **alt + S**
- ALT SWITCH TO SOURCE 1 **alt + 1**
- SWITCH TO SOURCE 2 **alt + 2**
- SWITCH TO SOURCE 1-2 (PIP) **alt + 3**

The main window displays the "ALL-IN-ONE CONTENT CREATION" page. It features sections for Multi-Source Recording, Vertical Video Capture, Stream to YouTube, Studio Controls, and Camera Customisation. At the bottom, there are controls for switching sources (1, 2, PIP), recording (red circle), taking a photo (camera icon), and adjusting audio levels.

Prizes for the best projects !





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THANK YOU !