Image Capture

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Features

- Three main methods
  - takePhoto() - For photographs in the form of blob object
  - grabFrame() – for RGBA data in the form of an ImageData object
  - setOptions() – for configuring capture device
- All promise based

Status

- Latest draft (dated January 2015): http://www.w3.org/TR/mediacapture-streams/
- 3 outstanding pull requests
  - Relatively minor
- Chromium intent to implement: https://code.google.com/p/chromium/issues/detail?id=518807
- FF OS partial implementation: https://bugzilla.mozilla.org/show_bug.cgi?id=1054905

grabFrame() and FoxEye

- grabFrame() was introduced in the spec to allow for bitmap-by-bitmap processing
  - Currently returns ImageData object
- FoxEye (https://wiki.mozilla.org/Project_FoxEye) goes much further
  - Allows for workers to monitor or process MediaStreamTrack frames
  - Uses ImageBitMap instead of ImageData
    - https://html.spec.whatwg.org/multipage/webappapis.html#imagebitmap
    - http://kakukogou.github.io/spec-imagebitmap-extension/
- Should FoxEye be adopted and grabFrame be removed?
  - FoxEye seems to meet goal better than grabFrame

Extending Constraints for MediaStream

- Current MediaStream constraints set was not meant to match rich camera settings
  - Covers lowest-common denominator for typical cameras used in WebRTC sessions
- Richer camera settings were moved to dependent specs (e.g. ImageCapture, Depth Stream Extensions)
- If MediaStream constraints are extended to cover settings/constraints in dependent specs, what are results for dependent functions?
  - Does MediaStream constraint take precedence?

Going Forward

- Take spec to “Last Call” after one more revision
  - Incorporate pull requests
  - Modify as per decision on FoxEye versus grabFrame()