

EPIC ONLINE TECHNOLOGY MEETING ON PHOTONICS FOR COSMETICS AND BEAUTY INDUSTRY

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PHOTONICS A TOOL FOR PERSONALIZATION



PERSONALIZATION TECHNOLOGICAL BRICKS



DIAGNOSTIC

Data collection on shape, appearance or condition of an object

- > Skin, hair, products
- > To develop prediction and recommendation algorithms



ALGORITHMS

Mathematical modeling of an object, product, or service

- > Design, recommend, predict or evaluate a product or service
- > Based on mechanistic or statistic modeling, hybrid approach, or AI



RENDERING

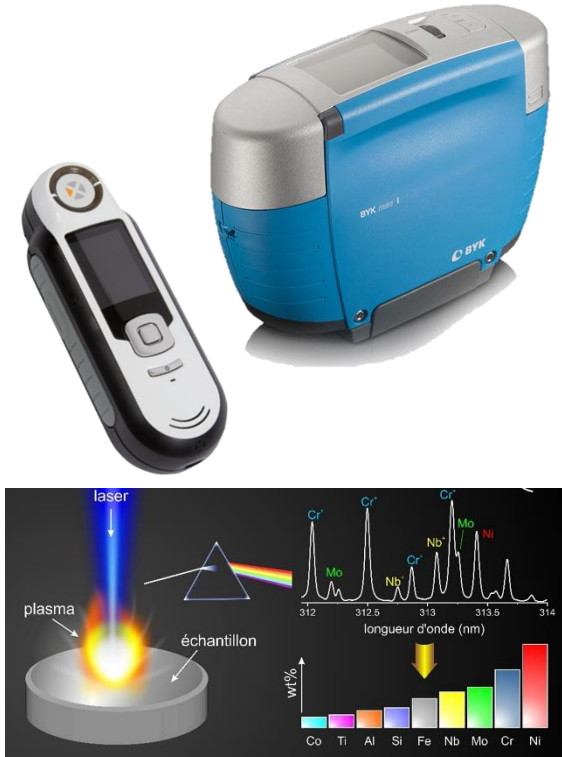
Final development of a real or virtual product

- > Creating a physical product or a virtual representation of it
- > @home, @PoS, @workshop/factory, @lab

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Research & Innovation

DIAGNOSTIC EXAMPLE OF ACTIVITIES



SPECTROSCOPY

Color and appearance characterization.
Raman, IR, LIBS spectroscopy.



IMAGING

RGB, Multispectral, 3D, with controlled illuminants



SMARTPHONE IMAGING

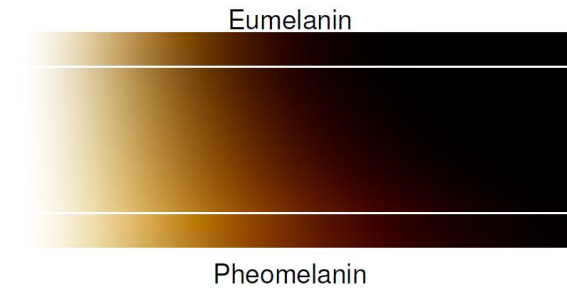
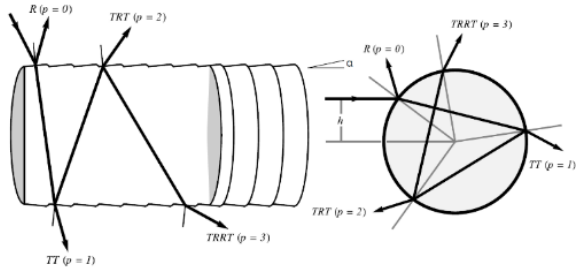
Great source of diagnostic with a generic device



OTHER

At home or in PoS : UV / environnement tracking, biomarkers

ALGORITHMS EXAMPLE OF ACTIVITIES



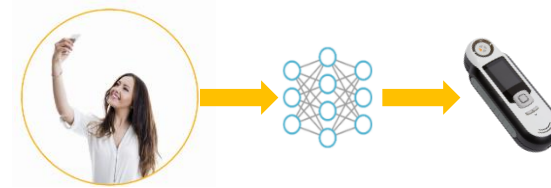
HAIR & SKIN MODELING

Optical modeling of biological substrates behavior



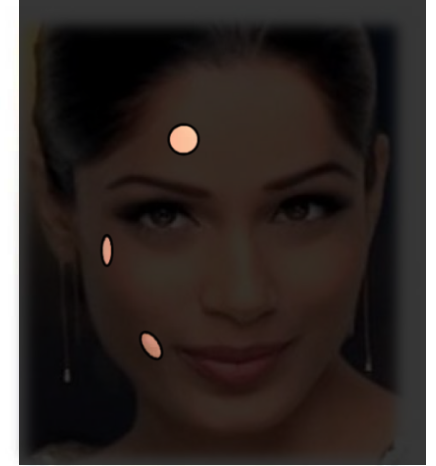
COLOR MODELING

Appearance modeling of products (for personalization purposes)



COMPUTER VISION

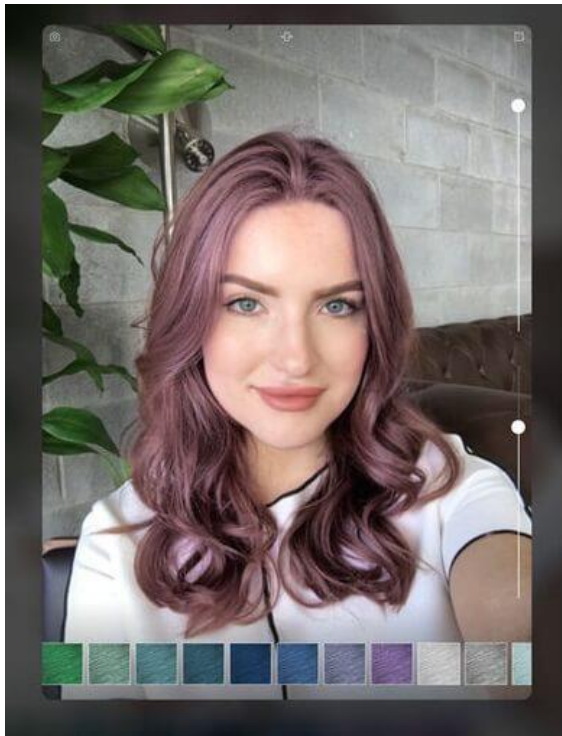
Face analysis for diagnostic or color estimation



AI

For recommendation algorithms or hybrid approaches

RENDERING EXAMPLE OF ACTIVITIES



AUGMENTER REALITY

Color and appearance simulation for hair and make-up



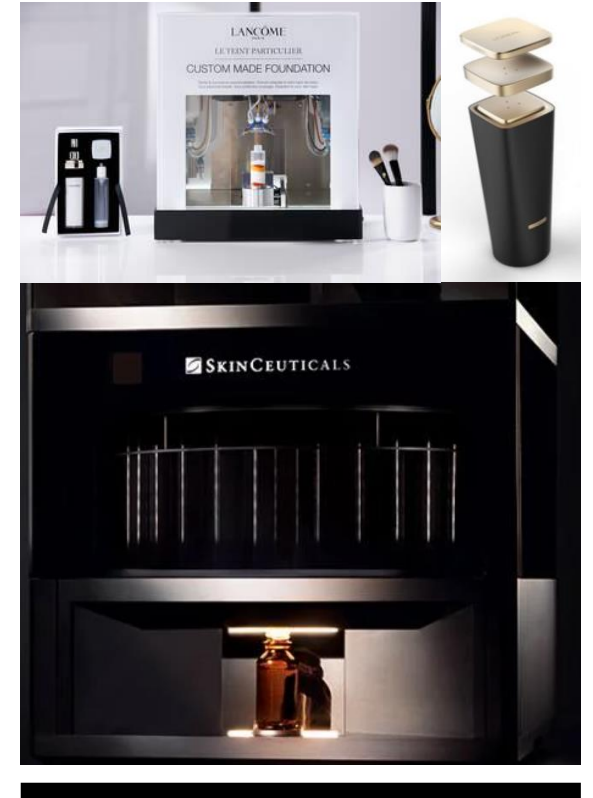
PROJECTION MAPPING

An other form of augmented reality, in the physical world



AVATARISATION

Virtual rendering of hair, skin and make-up products



DISPENSING

PoS or Home dispenser to create the personalized product

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