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REALTO: A platform for integrated vocational education
Dual-T Project, Leading house «Technologies for vocational education»
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Rationale

In Switzerland **vocational education** attracts more than 60% of secondary education students, who enroll in a dual system and alternate between different learning locations, namely the workplace and the vocational school.

Because of this alternation, students often perceive a **discrepancy between what they learn at school and what they need at the workplace**. This discrepancy requires a systematic integration of theoretical and practical knowledge.

Realto has been created to address this issue, around the idea of bridging the learners' experiences across learning locations by **exploiting the combination of mobile devices and an online learning environment**.

Features

Realto allows the users to:
- **Capture and share** professional-related experiences through different media (photos, text, audio, video)
- **Create and store** specific **learning activities** based on expanding experience through reflection
- **Connect the stakeholders** (students, teachers and supervisors) to inform and coordinate the competence development progress

Specific features:
- Social network structure and interaction, based on **posts, comments, messages, likes and sharing**
- **Class and personal** working space (Flows)
- **Image manipulation** (annotations, overlay and grouping)
- Teacher-led **learning activities**
- Workplace-oriented customizable **learning journal** (Learning Documentation)
- **User profiles** for teachers, students and supervisors
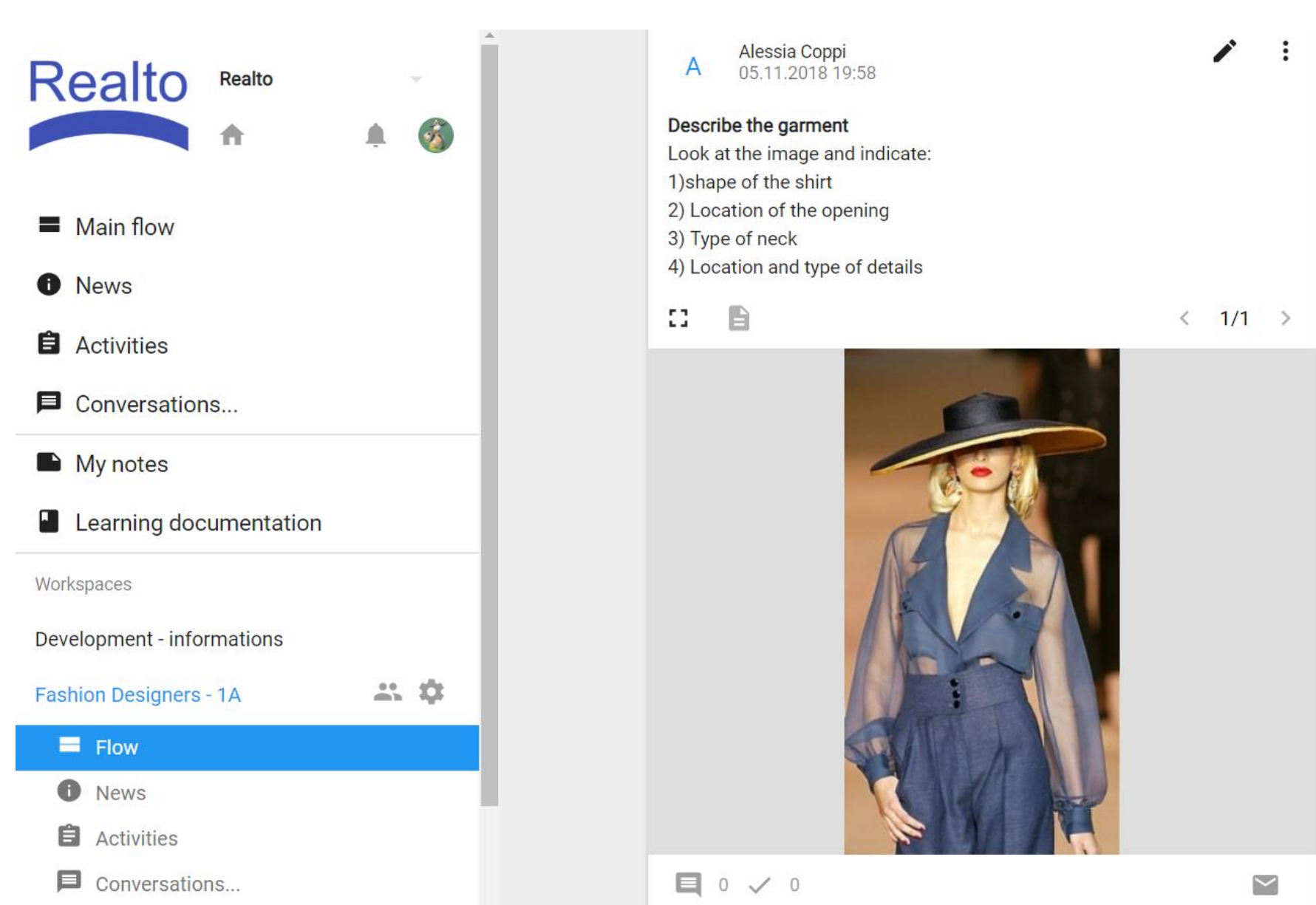
To access to a video presentation of the platform, please scan the QR code on the right.

Learning activities

We tested different kinds of learning activities with apprentices in many professional fields, like the following:
- Plumbers overlay technical drawings to find drawing errors and reflect on them;
- Gardeners individually upload pictures of specific plants to collaboratively manipulate and classify them;
- Multimedia Electronics upload work-related images to share and contrast cases;
- Fashion Designers annotate pictures to identify the parts composing different garments
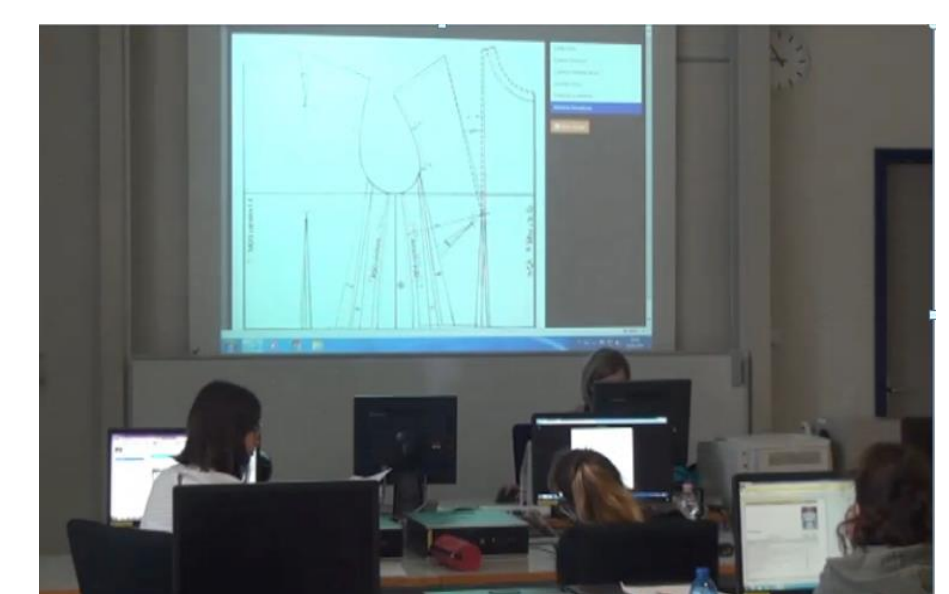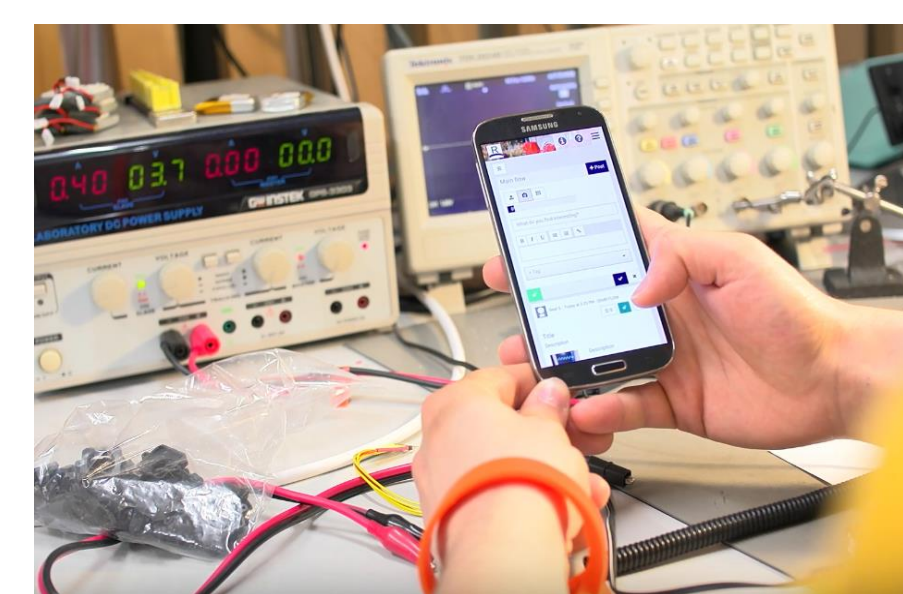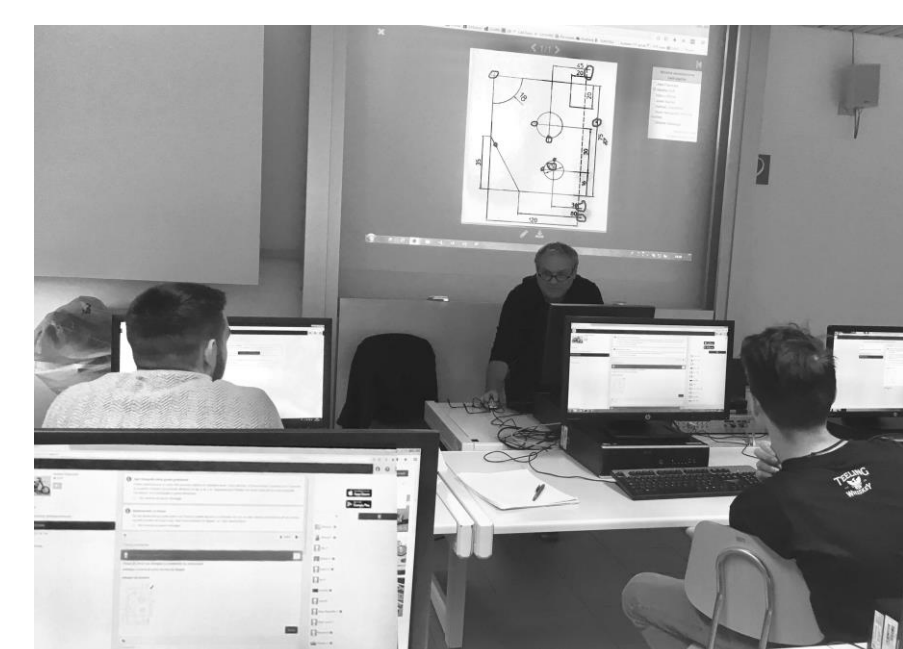
Ongoing research

Realto is fully consistent with **the Erfahrraum, a pedagogical model** developed within Dual-T to effectively integrate technologies in vocational education and aiming at bridging the gap between learning locations (Schwendimann, et al., 2015).

Beside being a tool for vocational education, Realto (as well as its predecessors) has been **instrumental for studies** on different professions such as cooks and bakers (e.g. Cattaneo, et al., 2015; Mauroux, et al., 2016). With **clothing designers** Realto was used to investigate the development of **observation skills** exploiting the affordances of its **annotation tool** (Caruso, et al., 2017).

Further research on this topic is still ongoing, applying for example eye-tracking methods to explore how observation develops in novice and experts when they look at garments.
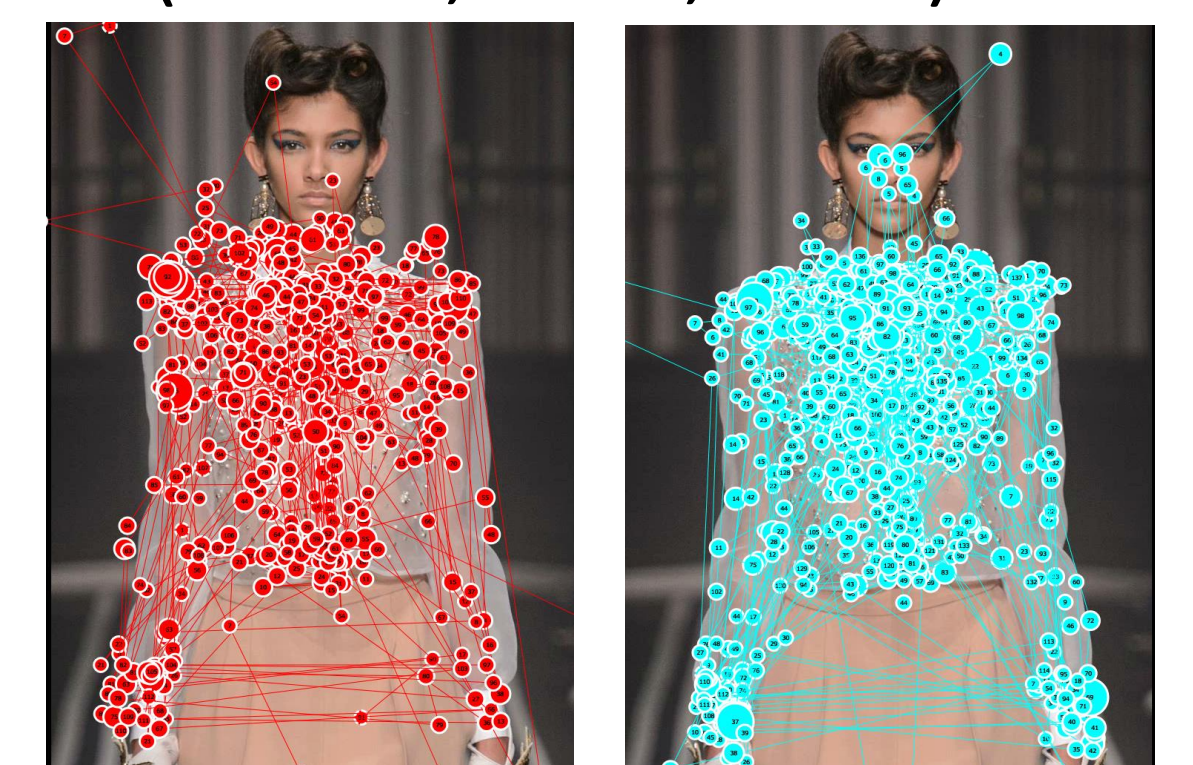
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