Role of automated feedback in generating feedback-rich environment

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Prof Michael Henderson
Digital Education Research Monash
Monash University, Australia

michael.henderson@monash.edu

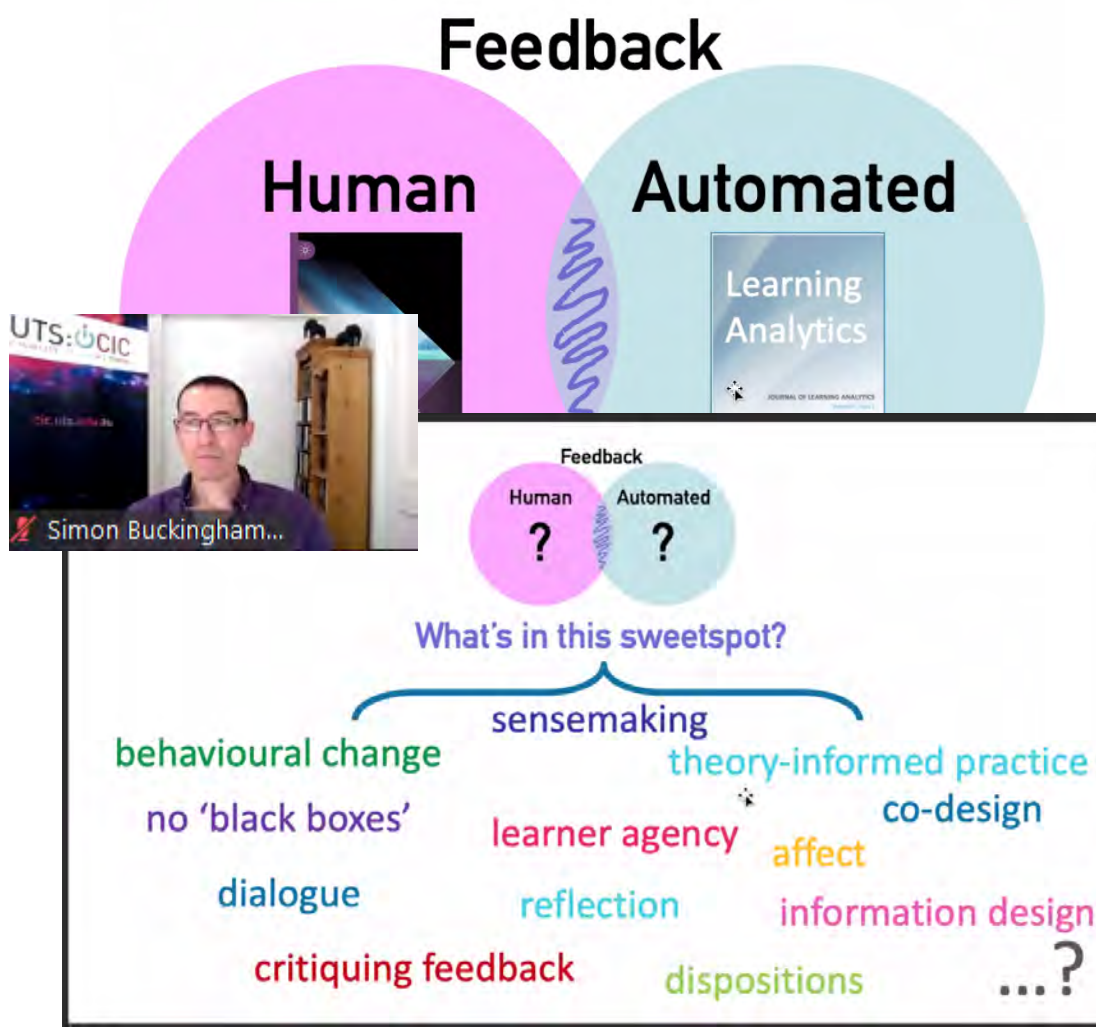
@mjhenderson

A/Prof Rola Ajjawi
CRADLE (Centre for Research in Assessment and Digital Learning)
Deakin University, Australia

rola.ajjawi@deakin.edu.au

Role of automated feedback in generating feedback-rich environment

- What is feedback?
- Why is it difficult to automate?
- Is it enough to *simply create* feedback-rich environments?
- Is it *simple to create* feedback-rich environments
- *How else* can we imagine the role of automated and large data driven approaches?



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Specific definitions can be really important!

Feedback and impact

Feedback: ***processes*** ***where the*** ***learner*** ***makes sense*** ***of performance relevant information to promote their learning***

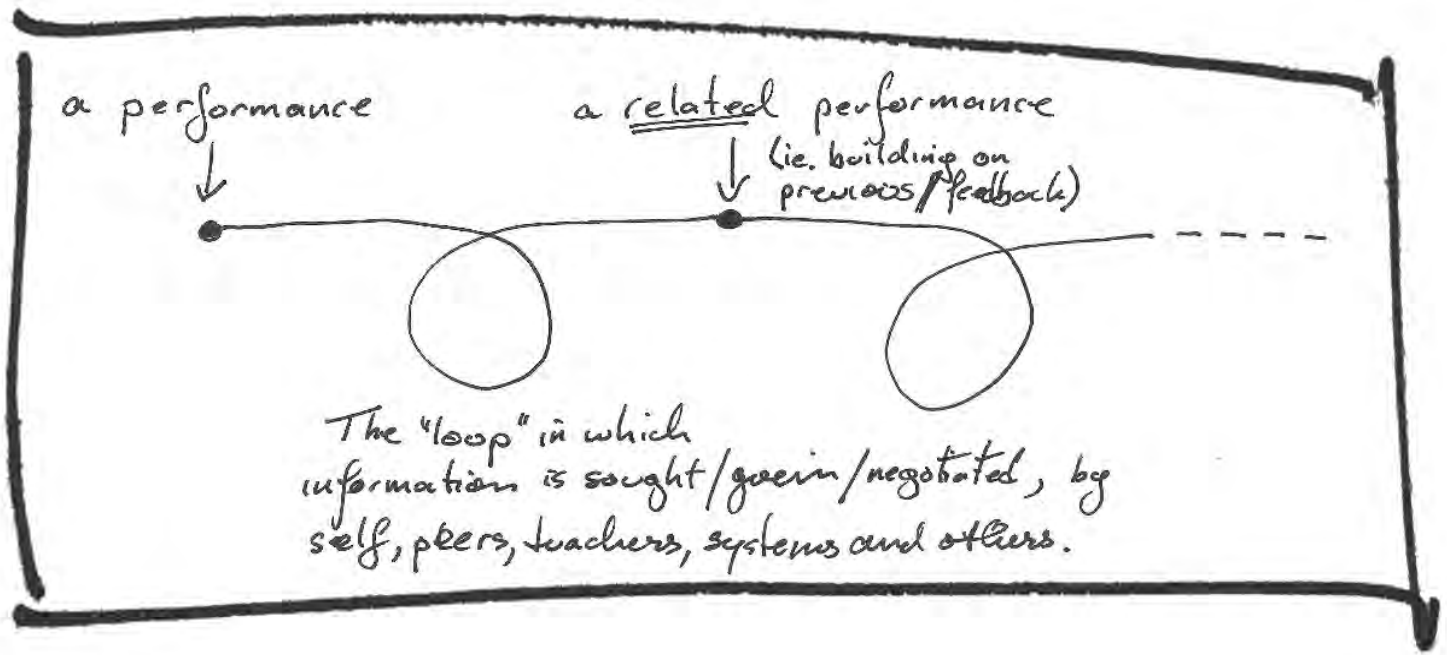
- **Processes** (not just “giving”)
- **Learners are active**
  - not necessarily involving teachers or systems
  - Shift from teacher centered conceptions of feedback
- **Sense-making**
  - not necessarily logical; learner dependent; fluid
- **Impact**
  - it is not enough to simply provide information and “hope for the best”

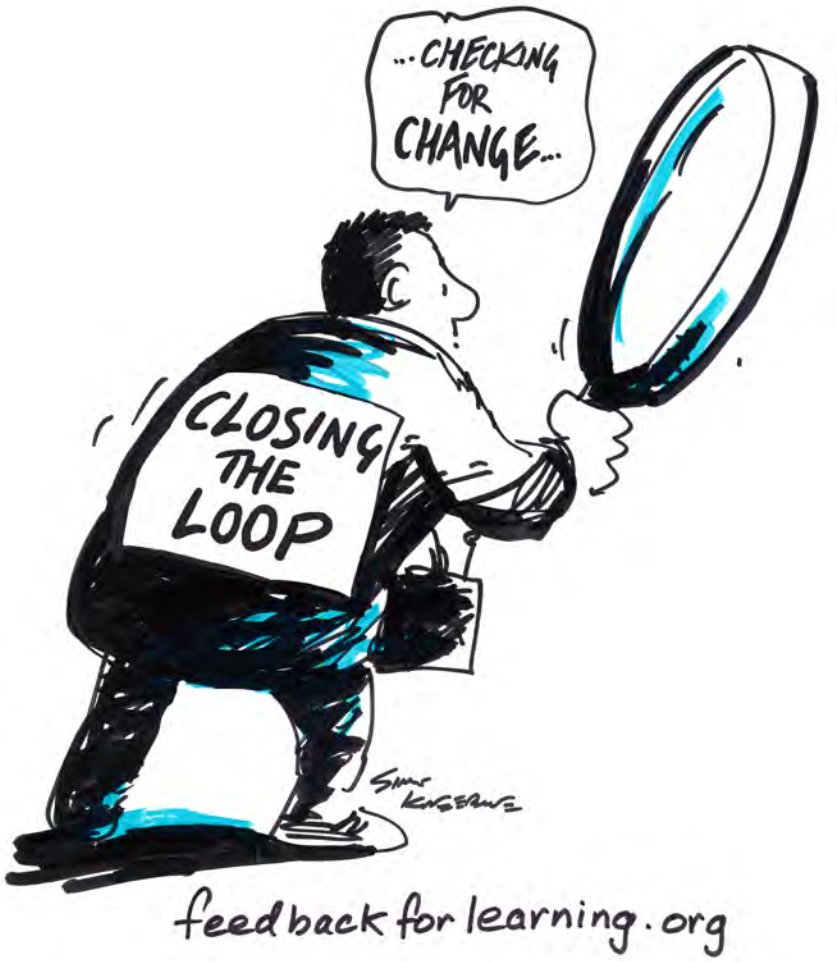


Locating impact

- **We seek improved outcomes** for our students
  - But impact is not just, or only, a learning outcome
  - Other impacts of feedback can interact with learning outcomes
  - Also, measures of learning outcomes such as grades need to be treated with caution in relation to the impact of specific feedback instances

- **Subsequent performance is a useful focus to locate impact**
  - but there are usually many contributing factors.
  - Subsequent performance may not be an accurate, or complete, representation of the feedback impact.



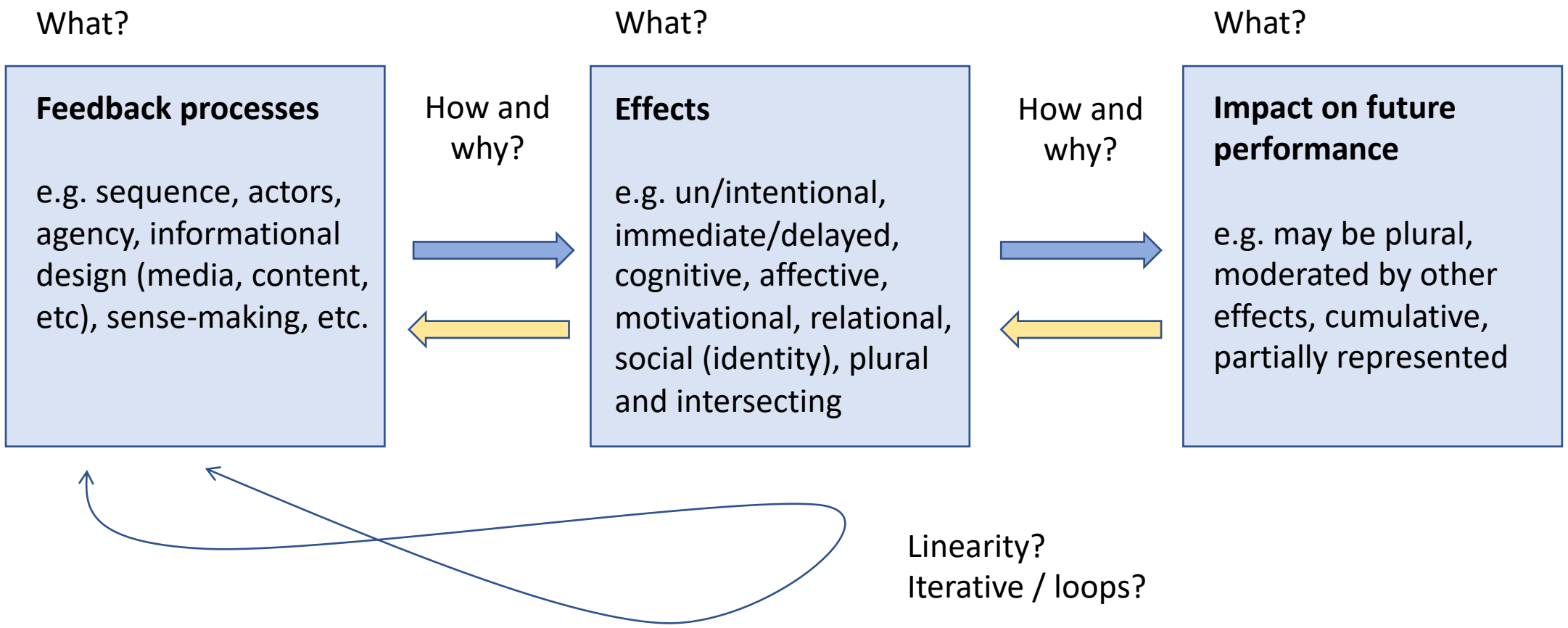


Impact may be:

- cognitive
  - Self-regulation
  - Evaluative judgement “the capability to make decisions about the quality of work of oneself and others” (Tai et al., 2018)
- affective or motivational
- relational
- changed values, beliefs and identity
- intentional and unintentional
- over time - delayed, have ripples
- plural, cumulative, and interact/moderate

Research challenges

Who, what, how, why, and when



Researching Feedback as Interaction

Rola Ajjawi, Deakin University

Journal
Assessment & Evaluation in Higher Education ›
Volume 42, 2017 - Issue 2

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Articles

Researching feedback dialogue: an interactional analysis approach

Rola Ajjawi & David Boud

Pages 252-265 | Published online: 29 Oct 2015

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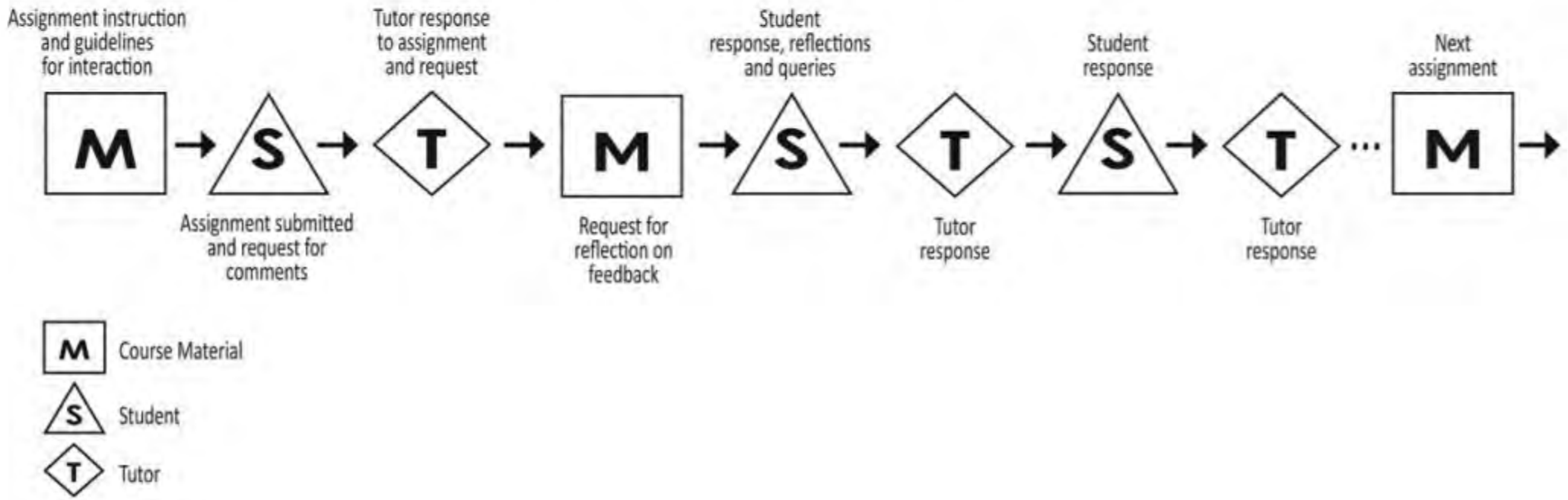
Abstract

A variety of understandings of feedback exist in the literature, which can broadly be categorised as cognitivist information transmission and socio-constructivist. Understanding feedback as information transmission or 'telling' has until recently been

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Episodes of dialogue



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Assessment & Evaluation in Higher Education ›
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Examining the nature and effects of feedback dialogue

Rola Ajjawi & David Boud

Pages 1106-1119 | Published online: 02 Feb 2018

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https://doi.org/10.1080/02602938.2018.1434128

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Abstract

Research has conventionally viewed feedback from the point of view of the input, thus

In this article

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Developing

Table 1. Dimensions and interactional features of feedback dialogue.

Dimensions	Interactional features
Cognitive	Question asking
	Enabling students to elaborate
	Encouraging reframing of ideas
	Promoting critical evaluation
	Engaging beyond the task
Social-affective	Linguistic strategies (e.g. mirroring, inclusive pronoun use)
	Expressing empathy
	Disclosure
	Acknowledging student emotional responses
	Providing support and encouragement
Structural	Invitations to the dialogue
	Opportunities for sustained dialogue longitudinally
	Sufficient time for dialogue to occur before the next task (for students and staff)
	Invitations for learners to seek feedback
	Authentic/contextualised assessment

- Feedback dialogue has been conceptualised as the dynamic interplay of three dimensions: the cognitive, the social-affective and the structural.
- The cognitive, social-affective and structural dimensions were interwoven within excerpts of feedback dialogue with effects on learners that extended beyond the immediate task (e.g. reframing of learners' ideas, critical evaluation).
- The interactional features of each dimension include: cognitive (e.g. question asking, expressing oneself); social-affective (e.g. disclosure, expressing empathy); and structural (e.g. longitudinal opportunities for dialogue, invitational opportunities).

Designing for impact

- Four key questions:
  - Do learners know the purpose of feedback and their role(s)?
    - Learners need to be actively engaged (to seek, make sense of, and act upon performance information) – but how do we encourage this?
  - Can learners make sense of the information?
    - Too much/little, richness, credibility, emotional layers, motivational triggers, etc.
  - Can learners take action?
    - What opportunities are there and how do students make these connections?
  - What effects should we (and students!) be looking for?



Designing for impact

- Opportunities for
  - action
  - early feedback
  - feedback-rich environments
  - co-construction of understanding
  - multi-source feedback
  - recognising and working with affect
  - Capacity building
    - Feedback literacy for learners and educators
    - Evaluative judgement
  - Systems to record (multiple) effects

Structure for audio-video enhanced feedback artefacts

A challenge … can we automate the generation of audio and video feedback?

Noting the impact of such media is as much related to relational, motivational, and affective – as any knowledge or skills.

Structural elements

Salutation

Relational work

Goal of recording

Evaluative summary

Textual issues

Commenting on the substance of the assignment with an emphasis on feed forward.
(including explicit statements of what will be looked for in future work)

Valediction
& invitation

An immediate opportunity

– to automatically analyse and generate feedback information for educators constructing these media artefacts.

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