

Making effective use of real-time environments - Teaching with synchronous technologies symposium

Friday 15th December 2017

Synchronous
Video Conferencing
Participation
Personalisation
Online
Practical
eTechnology
Social
Collaboration
Communities

11:10 – 11:50

Reviewing Yesterday's Bright Tomorrows; Two Decades of VC Teaching in UHI

Simon Clarke, Shetland College UHI

Objectives

- To review VC's development and its use by UHI to date.
- Consider obstacles to its more widespread adoption.
- Where next?

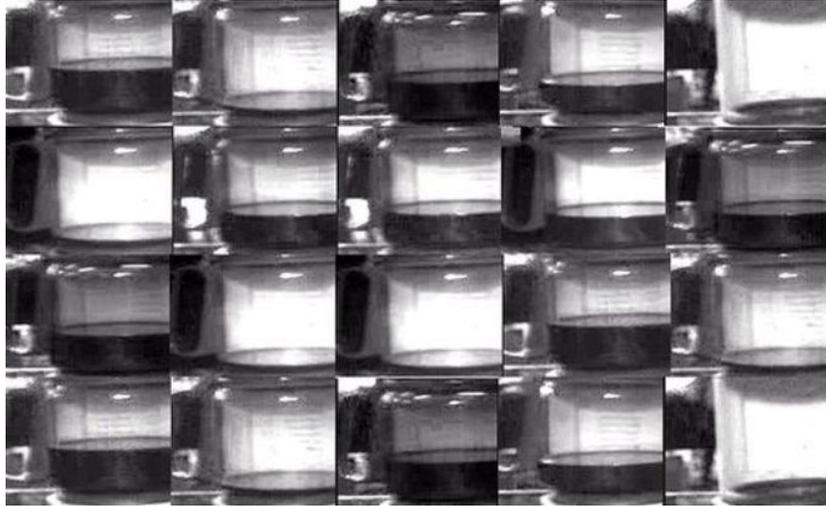
□ Potential progression from adaptive technology to tactical revolution.

Origins of VC - Videophone

- First commercial service operated by German Post Office, 1936-40 starting between Berlin and Leipzig, linked by 160 km of coaxial cable.
 - 1964 AT&T Picturephone, New York to Washington
 - Cameras in both cases based on John Logie Baird's design, transmission was of an analogue signal.
- Defeated by cost.

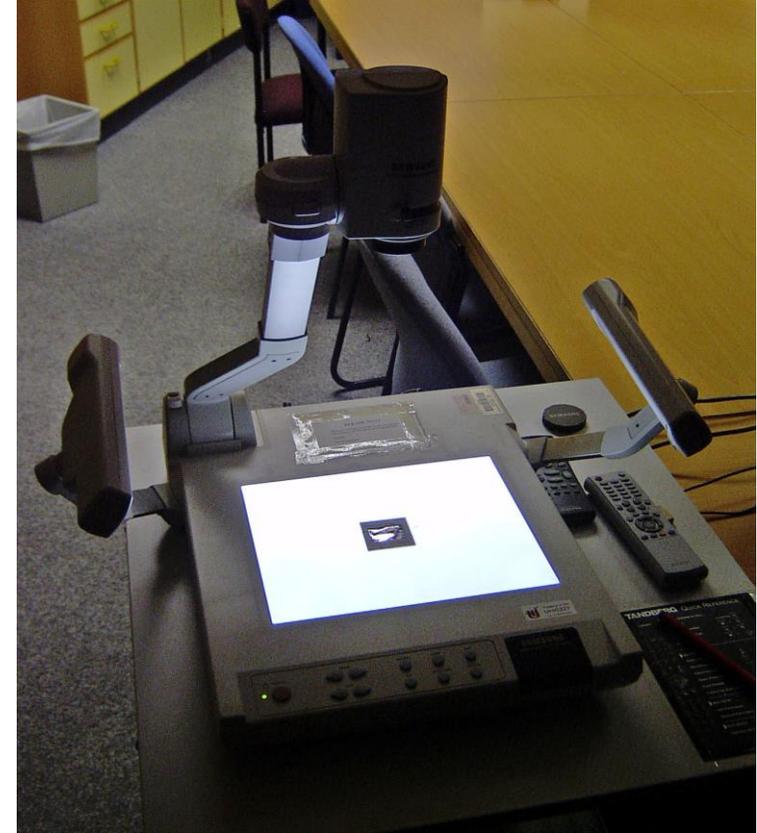


Modern Video Conferencing



- 1988 ISDN (Integrated Services for Digital Networks)
- 1991 first webcam; Trojan Room coffee pot, University of Cambridge
- 1990s standards based VC equipment from Tandberg, Polycom etc
- 1998 IP (Internet Protocol) VC lowered cost and widened availability
- 2005 high definition video – Lifesize VC units

Early VC Teaching at UHI

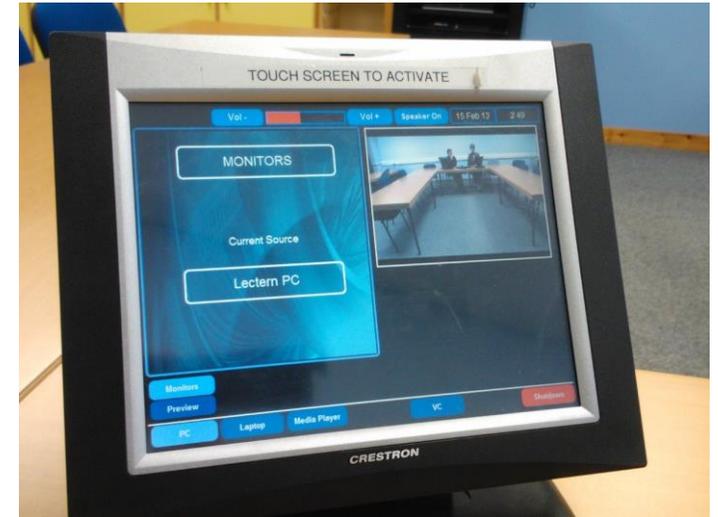


- Single channel VC communication (presentation or main camera), bulky cathode ray monitors
- Object / Document Camera

UHI's Main VC Suites



- Main VC Suite Shetland College 2013
- Crestron control unit and interactive PC screen

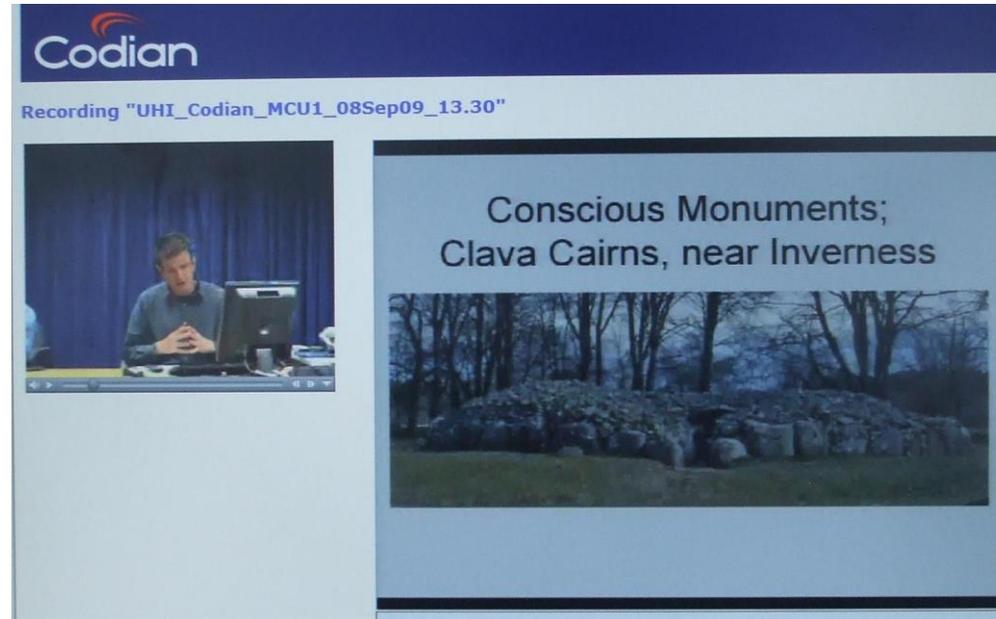


VC Auditorium



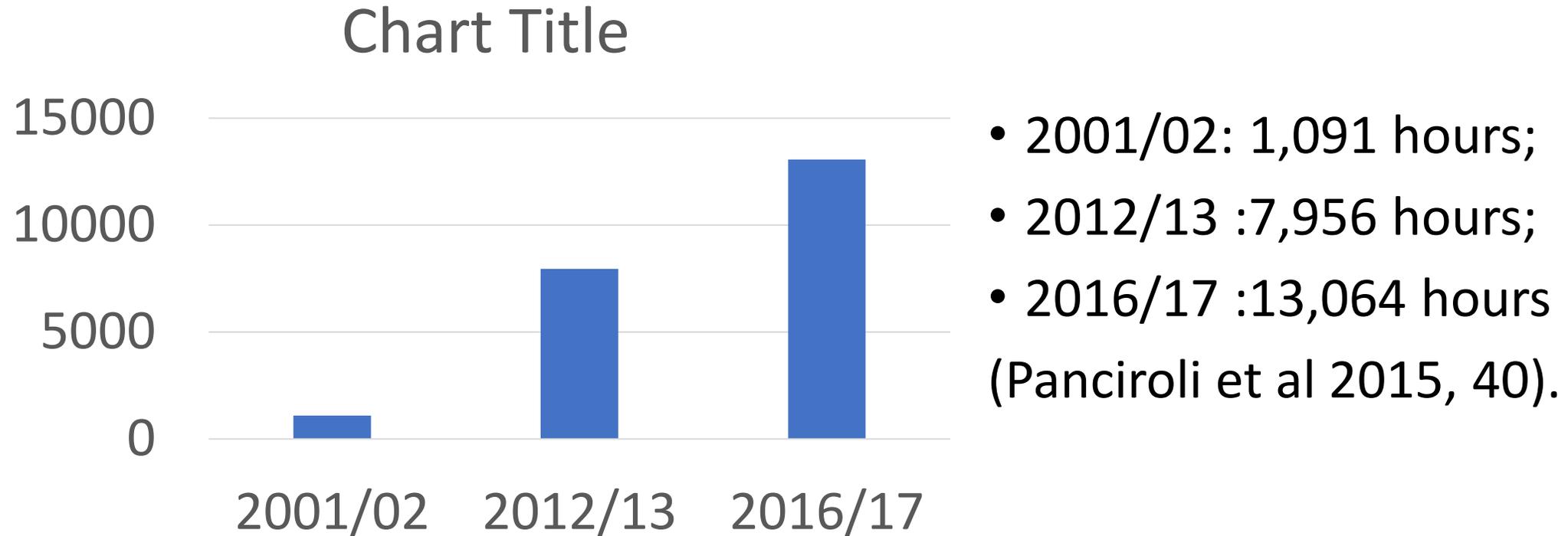
- Example Inverness College
- Separate cameras for the tutor and local class, speaker controls which image is sent
- Note also the “confidence monitor”

Central digital recording



- Originally VC recordings posted out to students on tape
- Codian Recorder; Up to 15 recordings simultaneously, content accessible over the internet

12 fold increase in VC Usage



- VC teaching used in 69% of undergraduate degrees
(as described in the 2017 Prospectus)

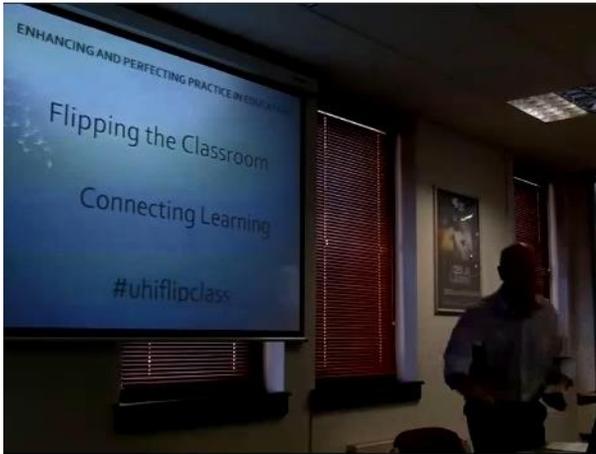
Analysis of UHI's Place in the Scottish HE Sector

- Blended online and VC delivery across campuses is UHI's most distinctive product.
- The numbers directly benefitting are modest compared to what could be achieved.

Kemp and Lawton 2013, 47-48

□ Why does VC remain an orphan technology?

Room Set-up, Lighting and Use of the Camera



- Put the lights on and address the camera
- Close the blinds, or don't sit in front of the window.
- Zoom in to maximise facial expression and body language.

Camera Position and the Local Audience



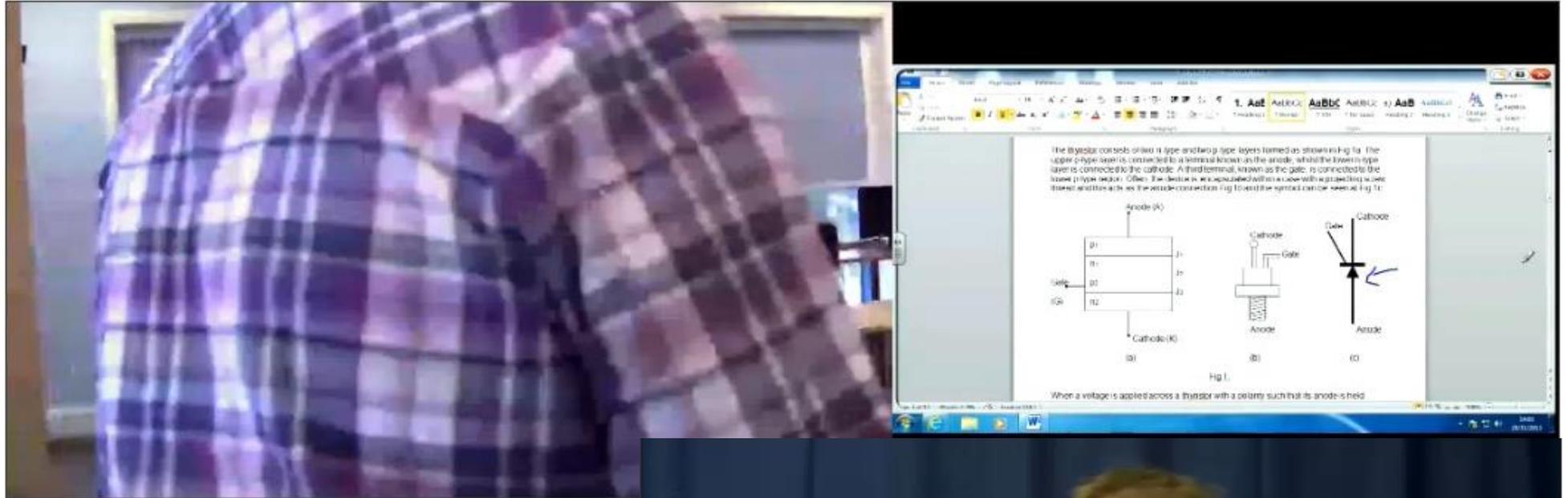
- Trying to address both local and remote audiences.
- A distant figure on wide angle.

The Reality of Auditoria Use

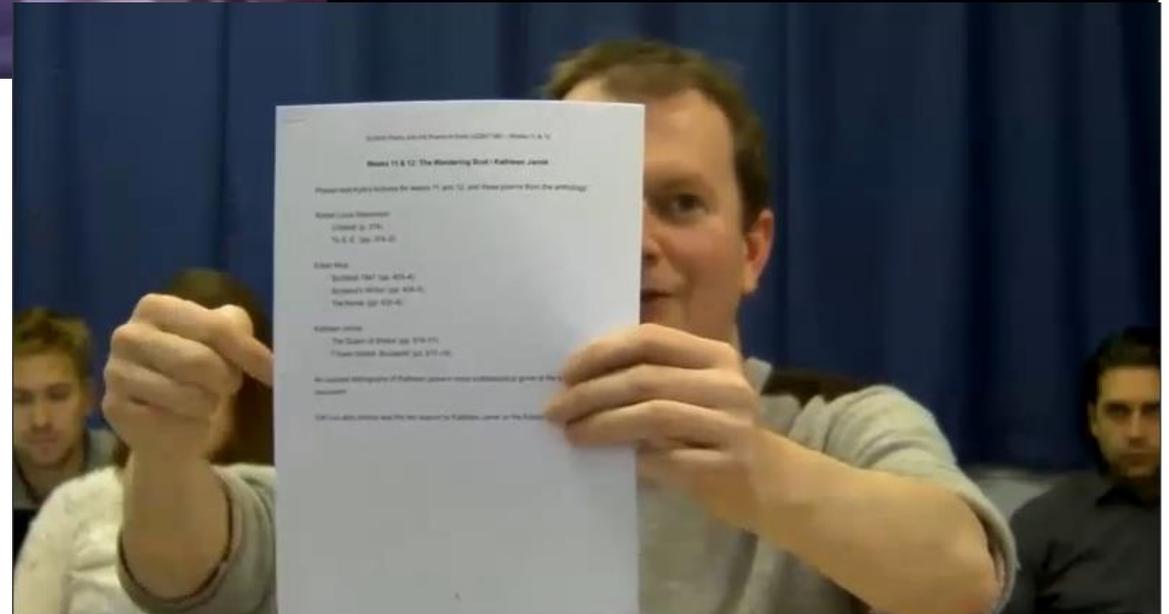


- UHI's most expensive spaces are the worst used and least used, often the VC space of last resort
- Audience participation from auditoria is extremely difficult

Presentational Technique and its Absence



- Illegible presentations
- Hardcopy for virtual students
- Turning their back to the camera



Lack of Educational Leadership

- Vision of UHI “between the OU and a traditional campus-based university” (Simco and Campbell 2011) is a confused compromise.
- Absence of direction on use of technology to achieve networked and off campus programmes (Strategic Vision and Plan 2015-20).
- Lack of a clear message in our marketing of the networked product (Prospectus 2018 barely distinguishes between four degree types).

Marketing; 2018 Prospectus

	<p>Ft Pt F2F VC OI</p> <p>UCAS code V400</p> <p>Mode of study Full-time and part-time</p> <p>Study method You will learn through a combination of face-to-face and video conference seminars and online study via the university's virtual learning environment (VLE), with support from your tutors.</p> <p>Entry requirements Highers: BBC A levels: BC</p> <p>At least two should be from the list of relevant academic subjects; please check our website for details.</p> <p>Alternatively, the satisfactory completion of our Archaeology and Local Studies access course.</p> <p>Applicants with other qualifications or experience will be considered on an individual basis.</p> <p>Advanced entry to year two may be possible with the HNC Social Sciences (see page 31) with three additional SCQF credits at level 7, and at least grade C in the Graded Unit.</p>		<p>Ft Pt F2F VC OI</p> <p>UCAS code W231</p> <p>Mode of study Full-time and part-time</p> <p>Study method You will learn through a combination of practical workshops in art and textile techniques, face-to-face and video conference lectures and tutorials, and online study via the university's virtual learning environment (VLE), with support from your tutors.</p> <p>Entry requirements Highers: CCC A levels: CC</p> <p>Prior to beginning the course most students will undertake a foundation year of mixed portfolio work.</p> <p>Alternatively, the completion of an art access course, with evidence of ability in written course work, for example a unit in contextual study or art history.</p> <p>You will also be required to submit a portfolio of visual work which clearly demonstrates your capacity to cope with the demands of the course.</p>
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- Very different programmes with very similar study method descriptions

Traps avoided! Immersive Telepresence



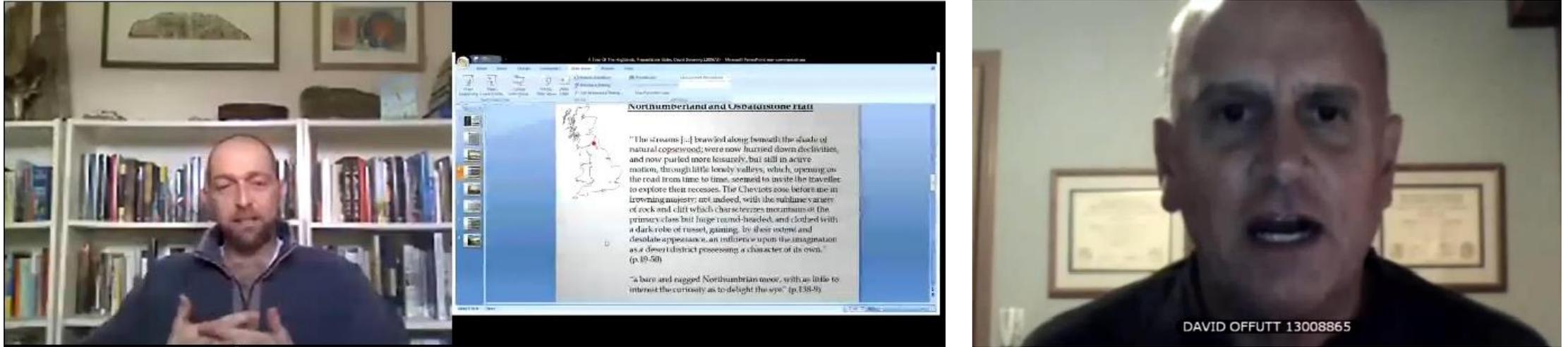
- Individual cameras and individual presentation of participants
- Identical furnishings and lighting for all participants
- Hi Tech defeated by participant behaviour

PC Based VC



- ConferenceMe / Movi / Jabber / Cisco Spark
- Desktop or laptop computers serve as VCs with cheap peripherals and free* software downloads.

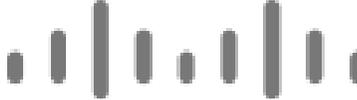
Student Participation from Off Campus



- Well framed and lit image, able to make a presentation by PC-VC
- Single figures easier to get to know.
- Lone students much more able to interact than those in a group

2017-18 Dial-in Replaces Automated Dial-up




CISCO



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- Greater flexibility to reallocate rooms
- Requires more discipline – system of warnings and auto cut-off lost.

Removing Barriers to Learning



- Step out from behind lecterns and control panels
- Facilitate VC learning as first amongst equals, using the same PC based equipment as the students.

Conclusions

- Teaching by VC at UHI has continued to grow, even though VC is no longer a novelty – it appears to be addressing a real need.
- UHI remains a market leader in VC teaching, not because of its kit, which is rapidly becoming obsolete, but because of its skills base.
- Significant improvements have been made in VC kit, which is now easier to use and significantly cheaper to buy and operate.
- PC based VC is actually adequate for both staff delivery and student participation.
- Most remaining VC problems require a policy or training fix rather than a technological solution.

Recommendations

- UHI needs a programme of quality improvement in its VC teaching, primarily focused on staff training.
- Individual participation through PC based VC is a better learning experience than via a shared VC suit. This has implications for estates, equipment acquisitions and programme design.
- UHI should develop degrees for off campus delivery – there is a student demand, and the experience can be better for both lecturer and student. If we don't someone else will!

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**Next up!
After the break.....**

12:30 – 13:10

**Teaching and learning with synchronous and
mobile technologies**

Sarah Cornelius, The University of Aberdeen

Blackboard Collaborate Ultra

Synchronous
Communities
eChnology
Social
Collaboration
Personalisation
Participation
Video Conferencing
Learning
am
us
nline
PracTice