

International House/Fulbright Seminars

Probably imperfect notes by JHD

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Chapter 1

Building a Better Business: Ethics, Governance & Preventing Misconduct

Actually a Fulbright–One-to-World event, and taking place at the International House.

John G. Duffy KBW (Vice-Chairman and previous CEO).

Terrence F. Martell Director of the Weissman center for International Business at Baruch College/CUNY.

Michel Perez Representative in US of French “Laboratoire d’Excellence en Régulation Financière”.

Panel is used when JHD couldn’t tell which it was.

1.1 Martell

I am on a lot of boards and sub-boards, including a family trust. My question is “Responsible to whom?”. I am responsible to the Board of Directors: profitable, growing, cash-flow positive. The Board’s job is to monitor that. How does it do that? I have a strong interest in market-based solutions. There is strong financial data, verified by public accountants. At the moment the rest is much weaker. How can we make this harder. Companies can produce CSRs, but there’s no standard, and no verification. At Baruch we have a professor who studies this, and we have a “CSR monitor”. We want to rank companies based on a set of metrics.

An institutional investor is coming in for the long-term, and needs to know the long-term risks.

Q–Panel Who writes the best reports?

A–JHD The most dubious companies: tobacco, mining etc?

Speaker Dead right.

The quality of the Chairman’s letter is very indicative: correlation with quality of report is positive and increasing.

1.2 Duffy

Disclosure: I sit on the Board that Terry chairs. KBW is a Wall Street investment bank, specialising in financial institutions. Well-regarded research product.

Responsibility to the shareholders has always been the case, and will continue. But there’s also shareholders, customers etc. JHD was quite right. Financial disclosure in the 1970s was not what it is today. CSR is evolving over the last 10 years in particular.

KBW was private until 2006, when we went public, with me as CEO. 2008 was interesting. In 2012, we merged and I’m no longer Chairman.

1.3 Perez

How did we get from conformity to compliance. I define compliance [JHD: I think he meant conformity] as a system of self-governance, established by a business organisation seeking to follow public policy. He claims what matters are rules by the state, by the profession/trade and by stakeholders.

In theory the directors represented the shareholders, but in practice friends of the Chairman and big customers. Also a lot of cross-membership. These days things are different — in France we tend to have top civil servants, and Germany trade unions. But the CEO/Board can’t do all, hence we have committees: compensation, environment where relevant, etc. Why/when the change? Speaker says Enron. 1977: Foreign Corrupt Practices Act in the USA. Also, much US financial regulation goes back to 1929. But what’s good yesterday may not be good today/tomorrow.

1.4 Duffy

The evolution of the committee concept has been rapid. When we were private, we had 11 employee directors. Public needs a minority, so, rather than having 12 externals, we cut employees to 3. Found an Audit Committee chair, who became lead director. Also evolution of the compensation committee. I couldn’t chair any committee. Specialist corporate governance consultancies, which are a relatively new phenomenon, which advise on board elections. Recommended

implies 93+% vote for election, not recommended typically 70%, less if there's a real issue.

Q Chairman/CEO versus just CEO.

Panel If the CEO is not Chairman, then you have two people with similar voices. There is an active debate whether boards should have an outside chairman, the voice was louder after 2008. Michel commented on employee directors, more common outside USA.

Q (Ecuador) These men come in, and take all the resources from the country.

Panel I have land south of El Paso from which I intend to extract copper. I'll put in place all that is legally and ethically required.

A–Michel you have to adhere to CSR in all countries, not just the base.

Q That's not my point.

A–Michel I spent seven years in Brazil. The point is that you need local laws, but also UN regulations. Professional bodies have regulations as well. The “banana republic” mentality still exists, but international regulations help. Look at the Petrobras case in Brazil. Collected the bribes for years, so why did the case emerge only 2 years ago?

Q–Brazil There was a public opinion change.

A–Michel Also a change in the law, “white collar law”.¹

A–Terrence I know that, if I hired the “right” consultant, I could have all the permits I need, but FCPA prevents that, so I really have to deal with the people affected.

Q (Ecuador) We need to make sure that the local voices are heard.

Q Compliance to rules, but corporations have a voice in writing the rules. No-one charged over Lehman Brothers.

Panel Conflicts of interests are a real problem. I think the US has one of the best legal systems in the world, whereas France has some way to go. Christine Lagarde was charged by a court who were appointed by the other political party. Should the IMF remove her. An IMF board committee decided to keep her. I think the French decision was politically motivated. I think the IMF committee made the right decision. Note also the gatekeepers: auditors etc.

¹Subsequently, JHD spoke to the questioner. He was really unconvinced that the law change was fundamental: that it was much more about public opinion.

Panel The Ecuador question: who should make the decision? Hard question. Everyone needs a voice, the more impacted, the more powerful. The person who might get a job would possibly have a different view than others. Also here, 50 years ago, the GE Company was dumping dangerous chemicals into the Hudson. Note also that there are a lot of funds who are deciding not to own certain industries.

Duffy Lehman Brothers: I am sure there was wrong-doing done. The corporations have paid 10^{10} – 10^{11} \$ in fines etc. But stupidity is not a crime. Lehman had been in the derivatives for a long time, but these really developed after 1995. These products were sold to many people. Did the salespeople do anything wrong: depended if they lied. Also “independent” rating agencies, who didn’t do a good job. A lot of these products were created because of Government policies to increase home-owning. Add regulators. Lehman had lots. The answer is more complicated than “some bad guy in Wall Street created this problem”.

Q What about SMEs?

Panel they are all too busy having ideas to worry about governance.

Michel Governance should be risk-based.

Q Volkswagen etc.

Panel complete mystery to me how they thought they could get away with it. But the company suffered. The real question is whether regulations are obeyed.

Michel Whistleblowers? Why were there none? France passed protective law last year.

Q Classified information. San Bernardino/Apple case: why did Apple refuse the information.

JHD Explanation via master keys

Panel There were divisions within FBI over whether to go to court.²

Q–Brazil is this sphere model real? How much have we learned from these crises? Are these piecemeal fixes?

Panel it’s really about who benefits from globalisation. Asia’s middle classes, the U.S. coasts. Go to Allentown or Trenton and you’ll see the losers.

²That wasn’t JHD’s impression. Rather that there had been divisions over previous cases, but that FBI management thought that San Bernardino, being terrorism, was a really good case to fight.

Chapter 2

Women in Film: Europe vs Hollywood

An I-House event, with Frauke Thielecke and Melissa Silverstein.

FT was at I-House in 2003, while at NYU Film School.

MS “Women in Hollywood” co-founder.

2.1 Excerpts

- Very short trailer-like clips
- A young mother’s view on being told her partner has fallen in love with another woman (German, subtitles)
- Very short trailer-like clips
- Elderly couple in bed, with the man asking “what if I were diagnosed with dementia” (German, subtitles)

2.2 Conversation between presenters

Q Why I-House, and NYU?

A Got a scholarship, started at set-manager’s assistant, then shift supervisor, but wanted US, and had studied American literature and culture at university. Then NYU summer school programme. After NYU, went to film school in Germany.

Q What made you think you could direct?

- A** I knew several specialisms, and being director is about coordinating these. As shift supervisor, I was implementing some-one else's vision, but I wanted to implement my vision.
- Q** Perhaps "vision" and "leadership" is where the women fall down. There's an international movement to give equal funding to male/female directors, at least from Government. In general, there has been no gender analysis at all. Started pushing for targets, then actually quotas. But the claim is that women don't apply. Compare politics.
- A** In Germany, you generally have to apply through a production company, and they may not support women to apply. The state-funded broadcasters have quotas (15% often), but the problem with state funding is that everyone thinks they can have a say in the script: "too violent", or whatever, so what's left is not your vision.
- Q** At festivals, the female ratio is 29% for shorts, 27% for feature length, but 4% for Hollywood.
- A** There's a problem that I don't work overtime, stay on budget etc., but the men work overtime and get hired.
- Q** This "women work hard" is becoming a health issue, not just in films, but generally.
- A** There's also an equal pay issue: 24%.
- Q** Men like Cruise have total control over who the female co-stars are, and how many words they say.
- Q** In 79 years, four women have been nominated for best director, and only one has won.
- A** Looking at a script, I try to change moulds: female policeman, director etc. Also actors say "how nice to work for you", and an actress said "I was really frightened of working for a female director".

2.3 Audience

- Q-Ireland (Kilkenny)** Classical musician, and we had a massive problem with sexism in orchestras, so implemented blind auditions.
- A-MS** It doesn't really work. Blind submissions are really hard to do for directing. There was also a case of a male/female colleagues who swapped e-mail for a week (I didn't quite follow the point).
- Q** In sports we see a lot of men sports, because men are the audience. Is the same true of films?

A–MS Women buy half the tickets, are 52% of the audience in US/Canada. Half the football audience are women.

A–MS People went out of their mind when they saw there could be female ghostbusters.

Q(man) What about cultural appropriation. Should stories about women only be directed by women?

A–FT Though I like emotional stuff, I'd like to do a crime show as well. But in Germany "men do crime shows" — why?

Q–MS ACLU write to ?? demanding it investigate systematic discrimination in Hollywood. Also trying to do unconscious bias training in Hollywood. Also distribution is a fast-changing world.

Q "Investors don't trust women" — who are they?

A–MS Much of the money comes from the studio. But at Cannes, we see people going to Russian oligarch's yachts etc. These people do not want women. The guy who runs Paramount was fired from another studio. These men can't think out of the box. But there are various arrangements: different Länder in Germany, multiple European funding sources for co-productions etc.

A–FT But we also get US companies shooting in Berlin and getting the subsidies.

Q FT: you're an alumna. Has the House helped inspire you?

A–FT I'm on the board of German alumni. First meeting in 2005, I was the only one not in finance/law. But one was a big film buff, which helped.

Q What advice for other women directors?

A Organise. Think outside the box casting. Many smaller production companies are run by women now.

A–MS It's about dreams and aspirations. We need a range of rôle models. No women have been nominated for "best cinematography". However, the Academy is changing: more Europeans etc.

Chapter 3

Ambassador Maleeha Lodhi

3.1 Introduction

Ambassador Maleeha Lodhi is the first woman to be Pakistan's UN Ambassador, and she's been that three times. Educated (and taught?) at LSE. Also High Commissioner to UK.

3.2 Conversation

Host was Azmat Khan, investigative journalist and Future of War Fellow at New America.

H “The press is the enemy of the people” has been said by the President here several times. As a journalist, what do you think?

A Wonderful to be here, and to see so many Pakistani girls here [cheers]. I was an academic before I became a journalist. When I started, we were not free. Zia's rule saw some opening. Today we see a very vibrant press and media in Pakistan: maybe too noisy, but that is the noise of democracy. I was once accused of sedition. I was the first woman to do this writing about serious politics and national security: now there are many. In the end, nobody wins against the media, so that attitude is self-defeating: not smart.

H How did you get her.

A A lot of my career has been accidents. Journalism happened, since I was interested in politics, and didn't have a famous surname. My mother had a scholarship to Columbia, but got married instead. In the Benazir regime I started writing. I was *de facto* editor, but formally there was a man with a long beard (nothing against beards!). Complained that my name didn't appear on the masthead. I think it had never occurred to

him, but he agreed. I am not saying that my gender was a handicap, but it needed consideration. Note that women are also under-represented in the news media in the West, so the phenomenon is global, but of differing intensities. You have to be a winner, not a whiner.

She(?Benazir) made an offer to be ambassador to Washington/Clinton. I said I wasn't trained, and she said "I had to training to be Prime Minister". Journalist/academic/diplomat are very similar: dispassionate analysis, articulation, people skills.

H Ability to analyze. You were encouraged to be transparent, but as a diplomat everything you say get analysed and weighed. Balance between honesty and toeing the line?

A A diplomat has to report back as honestly as possible. There is a difference.

Diplomat A diplomat reports back what the journalist said, 24 hours later because it has to be coded.

H You were ambassador to US at 9/11. How did this affect you.

A The biggest problem was to explain Pakistan's position. Not everyone in the USA could distinguish Afghanistan from Pakistan. Speaking to one US politician, he got the country wrong at the start, and again at the end. These things happen. I essentially became the ambassador for all Muslims. "We will be with you in sympathy, but please don't go to war, as war always kill innocent people" and "Make a distinction between those who planned the attacks, and their neighbours". But I'm saying so much from my book, so no-one will buy it.

H

A The first thing I said to Ban Ki Moon was "It took my country 67(JHD?) years to send a woman, but we get there in the end". The principal dynamic at the UN is collaboration, not confrontation. You have to work with others to get things done. One country one vote.

H Example?

A Climate change. Pakistan took on obligations as well, even though the first world has/should have greater obligations. Note that there are (now, a step for transparency) presentations by candidates for Secretary-General. Many negotiations are in groups, so we are in several, "Islamic Countries", "Non-aligned" (and others, JHD couldn't catch). Mutual trust and respect is a daily business. Occasionally a country can have a dramatic role: Pakistan on Security Council in 2003. The US made it's case for an invasion, and the SC wasn't convinced. But, of course, the invasion happened.

H India made a harsh rebuke of Pakistan, urging the world to isolate Pakistan.

A We had, and exercised, our Right Of Reply. This stuff happens. You need to anticipate these things. Our PM had spoken about the issue, but reasonably, and the Indian FM was not reasonable. Attempts to isolate Pakistan will fail: size, position, and a diaspora of 5M, many contributing to US economy. For example, Pakistan and India have common positions for UN Peacekeeping. We differ on Security Council reform. India is larger, and believes in size. We are in the same group as Italy on this issue.

3.3 Q&A

Q Kurdistan (Turkey) When the US wanted a resolution, and you were not convinced, what would you have done about Saddam Hussein.

A I do not believe in regime change. That would open up Pandora's box. The UN is the only entity which can legitimize the use of force. It is the safeguard.

Q Your excitement for South Asia. What about integration?

A The Chinese leader's vision of ???. Aim is regional connectivity, communication and energy corridors. The project is happening. The Chinese investment in Pakistan alone is G\$.

Q I heard you say that there's no beating the press. There's a lot of concern in America at the moment. It's very 1984.

A It's up to the American people to decide what's best for them! But seriously, my country has been there, and we've transitioned out of it.

Q (Pakistan, woman) How has Pakistan/US relationship evolves, and what can be done about it?

A The relationship has been driven by geopolitical events and hasn't been able to develop. Fulbright programme is testimony to benefits of relationship. A new administration is a chance to open a new chapter. The relationship should now be framed by peace in Afghanistan, rather than by war. The war has been very damaging to Pakistan: it is our humanitarian obligation to house the 2+M refugees. Unlike other countries, we don't squeak.

Q (Hyderabad) Oscars speech.

A I won't enter into this controversy.

Q (same) New party in India, Mohdi. Rise of the right. Will this change the relationship.

A It is up to the people of India. They have chosen their PM. Pakistan would like dialogue with the PM of India. Our PM was invited to, and went to, Mohdi's inauguration.

Q Media in Pakistan. Is the struggle now over? Isn't censorship coming back?

A I don't see the democratic process in danger, so I don't see the freedom of the press in danger. The military's acceptance of this is a major step forward. But it is freedom coloured by responsibility. I always worried lest there be something unsubstantiated in the paper. The press does a fair amount of agenda-setting. Losing your credibility is a major risk.

Q Ahmed (Germany) You say "It's the country's choice".

A The international community has stepped up in the case of genocide. But that is different from regime change. Consider Rwanda as an example.

Q Nadim; Journalism In Pakistan we have "soft coup" concept, so how can Pakistan be taken seriously.

A The era of coups is over. There is no "soft coup" concept, any more than being part-pregnant. Clearly the military has a strong voice on security issues, and many of our foreign policy issues are security-related.

Q Women's rôle?

A Female journalists, and diplomats, have the ability to listen well.

Host named various people, and the Ambassador generally replied "Politician". But for I-House "awesome".

Chapter 4

Fulbright Tour of UN

Took place 7 April 2017. Three talks, then an actual tour.

4.1 Sundholm

Talk/discussion by Matthias Sundholm, Communications Advisor to the Assistant Secretary-General and Executive Director, Security Council Counter-Terrorism Committee Executive Directorate.

4.1.1 Talk

There is no agreed definition of terrorism. We have 19 definitions of “acts of terrorism” as they pertain to aviation etc. and that was what the UN facilitated (in this area) for the first 50 or so years of its existence. After 9/11, this changed dramatically when SC agreed overarching resolution 1373 (2001), setting up SC CT committee. Same 15 members as the SC, but the chair rotates every 2 years, and currently is Egypt. Has CTED as its Executive Directorate. #UN_CTED on Twitter. We (CTED) have visited over 100 countries (with their approval). During these, we talk to ministers, also customs, border inspectors. GA also in 2006 adopted a four-pillar resolution. One is “root causes”¹. Two is “preventing and combatting terrorism”. Three is “solution measures”² (expertise, resources etc.). Four is “respecting fundamental human rights while countering terrorism”. The speaker mentioned waterboarding as a violation.

Fast forward to ISIS. they have resources (Mosul bank \$500M; oil, gas, antiquities; taxes; ransom) estimate \$2.9G/year, equates to annual Government budgets in the lower 1/3 of countries. ISIS aims to be a state. SC Resolution 2178 (2014) is important. Estimate 30-38K foreigners have joined ISIS, from over 100 countries. ISIS is losing territory, but the ideas are harder to defeat. What about returners?

¹Formally “addressing conditions conducive to the spread of terrorism”.

²Formally “building States capacity and strengthening the role of the United Nations”.

4.1.2 Q&A

Q Philippines?

A We may have been too distracted, but we cannot only focus on ISIS (Da'esh), but need to take a global approach, as terrorism is a global threat. Also Boko Haram (which may have split).

Q you mentioned today's Stockholm terrorism act. Low-tech ramming is common (China). What can you do about this?

A No simple solution. 9/11 was well-planned, but not very high-tech (bolt cutters etc.). But compare GermanWings suicide. There is much sophisticated work in cyberspace.

Q SC view on state of civilians if Assad collapses. Who then is a terrorist?

A SC is, alas, divided.

Q State-sponsored terrorism?

A Always a nasty debate. Russia claimed Turkey had bought ISIS oil. The UN couldn't confirm this.

Q Turkey facilitating entry to ISIS. Also they have access to Internet and social media.

A Limited means to assess. Turkey was very forthcoming. Of course, the US is often accused of being one-sided. ISIS have been good at social media. But people don't watch a video and then buy a plane ticket. There's real-world links as well. We work with Google, Facebook etc. Also JustPasteIt: one guy in Poland with 6M followers. Asked by Metropolitan Police to take down resources, but how? The Facebooks of this world have whole teams on this. Note also their terms of service. Microsoft now uses UN sanctions list.

Q What happens to Mosul afterwards?

A Not our immediate focus, but UN agencies such as UNICEF have plans. There first needs to be comprehensive security in Iraq, and a political solution in Syria. Massive challenges ahead.

Q How many affected by terrorism in Iraq?

A We normally get situation reports every two weeks. But I can't give you numbers now.

Q "War against terror": what about the laws of war.

A The UN doesn't use that phrase. Combat may be necessary but is not sufficient.

Q How effective is UN action versus unilateral.?

A Depends on definition. We have all failed in terms of ideas. But the key of SC/Chapter 7 is that action is binding on all Member States, and a SC decision provides legitimacy. Safe havens are an issue.

Q After an attack occurs, do you work to minimise hatred?

A Good question, and this is certainly something we recommend Member States do, especially in the aftermath of an attack. We spoke to both Belgium and France for example. We also have a close working relationship with a number of States that have recently been targeted, e.g. with the French Chief Terrorism Prosecutor, who does brief us.

Q Kashmir?

A Actually Department of Political Affairs, not CTED. This goes back to the terrorist/freedom fighter problem.

Q Why do people join?

A No “one size fits all”. Two extremes in socio-economic backgrounds. Radicalisation can be very fast. Religion is often used as a shield/excuse. Average age of recruits is 17-26, 35-40% women in Western Europe. Women can be victims, or perpetrators, or facilitators.

Q How do we fix this?

A Education is the long-term key. Look at what most if not all of the terrorist groups have targeted — Malala who speaks up for girls and womens right to education. Look at Boko Haram (roughly meaning “Western education is forbidden”³ and Al Shabab targeting university campuses, etc. — clearly educated individuals, particularly women and girls, must be seen as a threat to them.

Q What about countries like Afghanistan?

A The police force is much improving, but the threats are growing. Again, education in the long term. Also help with security.

Q What can the UN do to enforce its decisions?

A A chapter 7 resolution can be enforced. Often threat of publicity helps.

Q Human rights under conflict. Where do you draw the line between the respect for human rights and stopping terrorists online?

A We have Security Council Resolution 1624 (2005), which talks about incitement to commit violence, and provides a clear line. The freedom of expression is part of fundamental human rights, but it is not absolute and can be restricted for very specific reasons, such as incitement.

³JHD subsequently discovered <http://www.csmonitor.com/World/Security-Watch/Backchannels/2014/0506/Boko-Haram-doesn-t-really-mean-Western-education-is-a-sin>.

4.2 Sardar

Jitu Sardar, Deputy Director of Communications, Press and Public Affairs, U.S. Mission to the United States.

4.2.1 Talk

The last few days events have impacted our workload. I am a career Foreign Service officer, most recently Myanmar. Worked with Fulbrighters. Congratulations! Mission is the equivalent of an embassy. This is the epicentre of diplomacy. Work to ensure national and international press understand US position. US is president this month: peace-keeping missions (budget and effectiveness); human rights (explicit session on April 18, first ever); non-proliferation. Also need to talk to, and hear, NGOs. “Model UN Program” to teach about the UN. Cultural events. Baseball, basketball (JHD to self: probably a good idea not to mention ice hockey). The other sections in the mission are the political section, economic, legal, management, host country tasks [visas etc.].

4.2.2 Q&A

Q from India Trump’s media comments, ambassador’s comments on Kashmir.

A Trump has not indicated any restrictions on the press. See the exchanges in the domestic press. Ambassador recognised that a long-term solution requires both countries to be engaged.

Q What does the US bombing of Syria do to your work here.

A We had no advance notice. Policies change with administrations. Massive horrible attack. This administration felt that it could not go unpunished. There are resolutions holding Syria responsible.

Q-Pakistan A couple of years ago, Trump tweeted we shouldn’t intervene.

A 2013. I do not have the ability to read the President’s mind. A candidate is not the same as a Commander-in-Chief.

Q-Germany Does being the host country give you a structural advantage?

A it certainly keeps us busier. The status is clearly unique. But it’s not an advantage.

Q-Lebanon US uses veto when Israel attacks children. Mentioned bombing refugee camps in Lebanon.

A We see the UN as treating Israel unfairly at GA. There are one-sided resolutions. The Israeli government has not launched a chemical weapons attack. Trump has encouraged dialogue. The use of sarin gas is the focus. Comparisons are unhelpful.

Q ?.

A Samantha Powers' tribute to late Russian ambassador shows humanity. Clearly US and Russia have many differences. Where we agree, we act constructively. Putin's interference in democratic processes is a challenge.

Q Double standards over refugees versus bombing can be breeding grounds for trouble.

A The administration has separated refugee policy from this. The president's supporters had a view on refugee/ security issues. These are going through the courts. There are views over refugees versus humanitarian assistance.

Q Paris agreement is also international.

A The administration came into office with a certain view on US economic interests. Certain measures counter to the previous administration have been taken. You are entitled to your views. Please continue having this dialogue.

4.3 Anton ?

Anton is a Former Fulbrighter. He wasn't on the programme, but there was an emergency meeting of the Security Council that day, so JHD wonders whether they hadn't had to delay the actual tour.

From the UN management department. The previous speaker's job is only going to get harder. I was Fulbright in 2012. The UN is large: there is a department of outer space affairs, also agriculture etc. politics is less than 25% of the total. We have 4000 vacancies a year, and 750K applications. But applicants are scarce in IT, data science. careers.un.org is the site. There are essentially seven categories, but I currently handle 2-5.

1. [Unpaid] internships. 3-6 months. Need to have a six-month break afterwards before reapplying.
2. General Service. 60% of total. There is a test at each UN site, which has to be taken in person.
3. Professional. Each has its own process. Areas like politics get 1600+ applications. Field jobs get 80.
4. Volunteers. Run by Vienna. Many go on to Professional jobs because of their experience.
5. Director. Need 15 years experience. PhD years MIGHT count (maybe only 50)
6. Assistant Secretary-General etc are very political.
7. there are also consultancies. This has different rules.

Q Taiwan

A not a member state, so no

Q jobs for philosophers?

A Good question. No specified jobs.

Q White-listed universities, or can any apply?

A Must be UNESCO listed, that's all. But of course recruiters are human.

Q Time lag?

A My problem. For jobs it's currently over 200 days. GA insists we advertise for two months: too long in my view. I'm changing the system to 120 days, and better feedback. Internships are left with the manager, but that's next to address.

4.4 Tour

Good group. One, a Pakistani whose great grandfather had served with 2 Punjab in Burma (the Norfolk Yeomanry also served there), recognised my Royal Artillery tie, and another, Belgian, recognised the Cambridge tie pin.

Our subgroup guide for the UN building is Lithuanian, as are two of our group. Nice coincidence. On the tour of UN, an Afghan Fulbrighter had used (I think as a teacher) the UNICEF 'school in a box' that our guide was demonstrating.

Chapter 5

Powerful Free Technology for Three-Dimensional STEM Learning: Chad Dorsey

5.1 Introduction

Introducer, a Trustee of I-House, said Chad was introduced by the Chairman of Concord Consortium. STEM education has been growing in importance: in my day we booked time on *the* computer.

5.2 Talk

I spent some time at I-House in Chicago in my graduate student days I had some science classes that were great, and some that could have been much better. The classrooms of today don't mirror the outside world of today, never mind tomorrow.

Example 1 (Thermal IR camera) *Was \$10K a few years ago, now \$199. In a video, he part-covers a glass of water with a sheet of paper, and shows that the paper is now hotter than its surrounds, which seems to contradict entropy. Why?*

His visualisation of this was a simulation, not an animation. Can, for example, turn on “charge” in his simulation.

Concord is not-for-profit, largely funded by NSF grants. Our work is free Open Source. Come to our GitHub site!

5.2.1 Next Generation Science Standards

Makes best use of research on learning. NRC document “A framework for K-12 Science Education”. 8 scientific practices (e.g. conducting investigations, analysing data); subject matter, and cross-cutting concepts (scale, systems, energy, structure & function, stability & change).

Example 2 (Moth) *Watched through IR, looks uniform, then gradually transfers energy, and only then takes off.*

Research project in embodied learning, as the pupil’s hands control the simulation. Good video of kindergarten children seeing [simulations of] hot and cold molecules bumping into each other. Note that (JHD’s notation), we intuitively learn Aristotelean physics, because of friction etc., so teaching Newtonian physics requires unlearning. But we can simulate Newtonian properly at an earlier age.

Example 3 *Image of a model house, bay window, and possibly solar panels. Consider it’s solar efficiency in various locations.*

Mechatronics, with a “print to PDF” option, so they can be cut out. www.papermech.net.

5.3 Analysing Data

We know very little about preparing children for a “big data” world. We have “Common Online Data Analysis” platforms. Example of elephant seals off California.

Has a dragon-breeding simulation to teach genetics. Only one copy of the “wing” gene is needed, for example. 75% of dragons are hornless, for example. What does that say about the genetics?

Tracking students with learning analytics to tell the teacher where to focus.,

5.4 Q&A

Q–Education Students don’t go to the website on their own. How do you recruit teachers to prompt for this.

A Most of our work is designed for use in a classroom, so the teacher is the real customer. We aren’t sufficiently funded for professional development.

Q–Also teacher How would this be implemented in a classroom, what sort of differentiation (based on resources) do you envisage.

A There are multiple ways to use these resources. In some cases, one simulation being discussed can lead to better learning than one/student with iPads etc.

Q Where do you get the ideas for representing complex physical phenomena, e.g. the dragons.

A Our staff are pretty inventive! But there's a lot of research on misconceptions.

Q-ex-student Teachers can't set experiments, so the exams are always boring.

A Good point. Ideally we wouldn't need exams, if you've demonstrated knowledge. Couldn't we watch you, see your trail of reasoning? Projects questioning the nature of assessment. Differences in gender in house design, for example.

Q-Consulting How do you ensure these resources remain free?

A Updating is an issue. We have become good at grants, but that's not necessarily a business model. Hence working with publishers etc., who have now realised that we were right. Hope that they realise that we're the experts.

Q-Jazz pianist This technology could help teach kids art and music, ideas like improvisation?

A There's a lot of commonality. We partner with Children's Creativity Museum in SF. "Makey-makey" is an example of interfacing electronics to the world.

Q Children with learning difficulties, e.g. dyslexia.

A Some work in different modalities of presentation. Doing some work for the blind.

Q-Engineer now teaching in Bronx My problem in English language learners. But many kids have interrupted education.

A Getting close to the phenomena is good. Getting the right words can come later, and may even get in the way if too early. Example: "dominant/recessive".

Q-Education How far can you look into the future? VR for example?

A Grant work sets its own timescales [JHD's interpretation].

Private conversation: JHD introduced himself, and the speaker seemed somewhat aware of National Curriculum etc. They are not doing programming as such, but interested in interplay of computational thinking and other subjects.