

The role of activism in ICT for Sustainability

Samuel Mann
Otago Polytechnic
samuel.mann@op.ac.nz

Shane Gallagher
University of Otago
shane.gallagher@otago.ac.nz

Nell Smith
AUT University of Technology
nell.smith@aut.ac.nz

ABSTRACT

This paper describes an analysis of responses to the question "do you consider yourself to be an activist?" and applies the learnings from that to computing for sustainability. At a panel "CHI at the barricades: the role of activism in HCI" (CHI 2013), Ben Shneiderman argued that "We have an enormous opportunity to make a difference...the very nature of Human Computer Interaction is an activist agenda". This paper explores the potential of that principle. The research is informed by a qualitative content analysis of practitioners (n=50) from varying fields who we asked "do you consider yourself to be an activist?". The term activism was chosen as it is often considered to be "loaded" and whether or no people described themselves as activists does not really matter, it is the explanation of that response that follows the short answer that carries the value for considering the value of activism in computing.

Keywords activism, sustainable practitioner, professional practice

1. INTRODUCTION

Computing has recently seen an increase in computing (IT, ICT etc) for something (sustainability, Peace, Social Good etc). The use of the "for" implies an activist stance but the implications of this are not well understood. This paper attempts to shed some light on the implications of an activist stance in teaching, research and practice. We use Human Computer Interaction (HCI) to represent the field of computing as in many cases it is at the pointy end of this debate.

As a starting point, let us examine two strongly contrasting views. First, Fish (2008) argues that the university professor should "Save the world on your own time". Fish starts by asking two related questions: what is the job of higher education?, and what is it that those employed in higher education are trained and paid to do? His answer (to both) is to introduce students to bodies of knowledge and methods of enquiry, and to equip those students with analytical (etc) skills to move confidently in that field "Nothing else, nothing more and nothing less". Fish argues that it is a "dereliction of duty" to attempt to include anything else. Fish argues that "one does less when you see yourself as a bearer of a higher calling". He is highly critical of both the individual academic or institution that harbours a role in "other jobs". Such distractions include: tackling racism; poverty; war; aiming to respect diversity. He criticises institutions that have mission statements aiming to produce "effective and productive citizens (who)...contribute socially, ethically...". Instead, Fish argues, class should be value-free. Argument of the day should be "academicised – detached from the context of real world urgency". This, he argues will "change the inclination (of students) to change the world, into an urge to understand". His contention is that such "academicisation is the only thing that should happen in the classroom".

These arguments for a purely critical approach stand in stark contrast to those of Parker *et al.* (2012). Writing about HCI and health promotion, Parker sates that a health activism research agenda is a "lens that can help us conceive of new ways in that technology can help people live healthier lives". More than a euphemism for simply being active in an area, Parker argues that the activist lens shifts the focus of research from "wellness as an ideal state challenged mainly by an individual's lack of motivation, interest, knowledge, or access to social support" to focus on structural changes such as power imbalances; the software is "not simply an information appliance but as a political actor"; and "necessitates approaching the pursuit of health not only as a matter of individual behavioural change but also explicitly confronting the community, cultural, and society-

level forces that shape the conditions in which people live". Addressing health injustices, researchers may also be forced to make value assessments, "taking a stand for what they feel is right and wrong".

So we have two strongly conflicting arguments about the role of activism (and note that neither attempt to survey the breadth and complexity of the debate). But in computing, in HCI in particular lacks a critical discourse and structure (save the excellent work of Carl DiSalvo and colleagues (2009; 2010). For the academic, there is little ontological guidance for anyone considering an activist "for something" stance. In other fields, the critical discourse is several stages ahead of computing. In tourism, for example, the field of hopeful tourism provides a transformational perspective (Pritchard *et al.* 2011). It is an interesting exercise to replace "tourism" with "computing". For example a passage that begins "Tribe's latest analysis of tourism knowledge..." becomes: (we've also changed the citation lest anyone find this and inadvertently propagates the appropriation),

HypotheticalAuthor's latest analysis of computing knowledge suggests that the field's lack of theoretical development confirms its uncertain status and 'indiscipline'. Indeed, he elsewhere argues that computer science's philosophical foundations have 'remained stubbornly underdeveloped' in a world rooted in neo-liberal market ideologies and values where the industry has become a 'runaway' phenomenon, ill-managed and barely controlled (HypotheticalAuthor, 2009). Our ability to momentarily step outside of this world, to question its dominant philosophies and to reflect on its meaning and purpose is, as HypotheticalAuthor suggests, itself a philosophical act. It is an act which goes to the heart of questions about truth, beauty and virtue and challenges academics to reflect on ontological foundations.

Admittedly this is probably the easiest paragraph to transpose but almost any other can withstand the same replacement:

However, computing's overall lack of theoretical engagement has compounded a situation whereby 'many orthodox researchers follow the largely discredited positivist correspondence of truth theory . . . one that is almost entirely rejected by the social sciences'.

and

In addition, critical reflections on the market economy are rare in business schools (where most computer science academics are located), whose researchers continually eschew social, political and ethical critique in favour of

technical, problem-solving research (HypotheticalAuthor 2008). In such an environment, it is not surprising that computer science enquiry promotes particular values of 'performativity, consumerism and profitability' over all others'.

That we rarely find such arguments in the computing literature suggests our efforts in computing for sustainability are only scratching the surface and trying not to scare the horses (to badly mix a metaphor). Maybe adopting a truly activist stance, perhaps "hopeful computing" would provide the missing direction and critical discussion.

Along with the increase in "computing for something", there has been a quieter but nevertheless present trickle of academic interest in the nature of activism within the discipline. This academic discussion can be seen in various panels and workshops at conferences. Hirsch (2009) described HCI working as contestational designers – "quietly developing infrastructure for contemporary protest movements". But the paper is largely about what can be learnt from the "rough and tumble" development cycles necessitated by the technology use by activists. Di Salvo *et al.*'s (2010) panel considered "how we address the politics inherent in community based HCI research". They argued that traditional HCI approaches "bracket out the political in an effort to focus on the instrumental issues and uses of technology" but that the HCI researcher is a "political actor...squarely in the political arena...the researcher's position shifts away from the standard scientific stance as a detached observer or designer, and comes into conflict with the norms of HCI research". In 2013 "CHI at the barricades: an Activist Agenda?", (Busse *et al.*, 2013) panellists explored CHI's role in supporting or enabling activist causes, if any? During that panel Ben Shneiderman asserted "we have an enormous opportunity to make a difference...the very nature of Human Computer Interaction is an activist agenda" (he later repeated these statements in (Shneiderman, 2013). He positioned this as an expectation "We should expect as mature adults and professionals to be engaged in making a better world...if someone is not speaking up then we should be worried". Rather than distraction to the science, Shneiderman sees the challenges as opportunity to move beyond efficient and usability "how do we create a language and metric of the human experience of technology that goes beyond bits and bytes and looks at human questions of trust, empathy, responsibility and privacy?".

Not just working with activists, but the HCI practitioner adopting an activist stance also underlies Knowles *et al.*'s proposal for a radical approach to HCI (2013). She argues that Computing for Sustainability (HCI in particular) has been hampered by an ecological modernisation agenda – the optimistic thought that greening IT will save the world – "computing seeks sustainability wins that can be found within the dominant ideology of our technological era" but rarely goes beyond "encouraging unfettered consumerism and shallow forms of socialisation". Knowles would rather a radical HCI agenda explore alternatives "an inherently unsustainable digital economy, or challenging the instrumentalisation of the sustainability problem". She concludes that computing has "unwittingly narrowed its solution space", and that even greater opportunities for research might be discovered by going beyond the traditional energy efficiency focussed persuasive technology "to embrace more contemporary, more holistic, and more radical understandings of sustainability".

There are dangers of adopting activist approaches without considering the implications of this. Leahu *et al.* (2008) describe HCI drawing from other disciplines, in this case, Situationist art as an inspiration for alternative forms of HCI design. Situationist art set out to devise situations aimed at raising awareness with regard to the conditions of a place or society. In striving to shift

public awareness towards a participatory model that would challenge materialism as the basis for negotiating human relations these situations "went beyond performance spaces, attempting to transform entire neighbourhoods or cities, i.e. they had a central activist component". HCI has appropriated Situationist methods such as the detournement, adopted in HCI as the cultural probe, intended to stimulate reinterpretation of users' lives. But, as Leahu argues, while the "original probes subvert the status quo in order to convey a different message" the broader use in HCI "has often lost the subversive sense and as a consequence become unrecognisable as a form of Situationist practice". The result is a misappropriation and weakening of an activist culture and agenda. Splitting the reflective and activist goals is not problematic for Leahu, but the fact that it is "largely undiscussed" is. They ask "What would happen if HCI were to take Situationism seriously on its own terms; not as a source of methods, but as a sensibility for approaching design?".

Our meta-question for computing is a similar question, what would be the consideration of adopting an activist agenda in computing *for* something. This paper contributes to this discussion by exploring what it means to be an activist (or not), in a variety of other disciplines. We conclude with a set of observations.

2. METHOD

Using a qualitative content analysis approach, we examined the transcripts of 50 practitioners from a variety of fields who during a radio interview were asked "Do you consider yourself to be an activist?". The radio show "Sustainable Lens: Resilience on Radio" is styled upon being a conversation about the participants' work, background and personal motivations. The activist question was asked in the last five minutes of each 50 minute interview, followed by "what challenges do you face in the next two years", and "do you have an action that you would like listeners to take?". The responses are considered naturally occurring data, already published as part of a longer conversations broadcast on radio and available as a podcast (sustainablelens.org).

The term activism was deliberately chosen as it is often considered to be "loaded" and whether or not people described themselves as activists does not really matter, it is the explanation of that response that follows the short answer that carries the value for interesting radio, and here for considering the value of activism in their practice. As is appropriate for qualitative research, the following section integrates the results and discussion, with analysis being found in the identification and structuring according to emergent themes.

3. PRACTITIONERS' PERSPECTIVES

3.1 Activism as a Term

The root word of activist is the Latin *actus*, "a doing, a driving force, or an impulse". Activist is the noun of activism "The policy of active participation or engagement in a particular sphere of activity; spec the use of vigorous campaigning to bring about political or social change". It is perhaps the illustration that causes difficulty, the vigour, the campaign and the political element can all raise warning flags for people.

Some practitioners had no problem at all with the term activist, with some such as educator Wayne Mackintosh (2013) almost wearing it as a badge of honour "Absolutely I'm an activist, an open source, open education activist" and doing it with responsibility and urgency "mission critical for a more sustainable planet. We need to be using scarce resources more effectively, and respect the fundamental freedom of expression that we espouse to in modern democracies". So too does filmmaker and author Peter Hayden (2013) "I am a storyteller. I

am an activist, I have to be – there’s a hell of a lot to be activist about”.

Patricia Widener (2014) was also happy to be described as an activist, “Yes, I’m a sociologist-activist”:

We’re seeing the rise of the hyphenated activist...the professor-activist, the lawyer-activist, the farmer-activist, the grandparent-activist, the student-activist. A lot of people are doing both, and they’re doing both because these problems are coming closer to where they live, work, study and play. At that point, when you take a position on something, you have a multiple presence – you are what you are and you’re an activist, or advocate. Not against, but advocating for. For communities, for environment, advocates for – not against.

For some, the word activist was problematic – suggestive of student protest movements. Mike Sammons (2013) is sustainability manager of a national supermarket chain responded “In the days when I had longer hair...I’ve been on a few marches. There’s a time and a place for activism”. When prompted for his role in the company he continued:

Yeah, I’m certainly a proponent but I’m a strategist as well – I can see where I want to get to, and I’ll decide on the best way to actually achieve that. You use a variety of tools, skills and experience to work out the best way of doing that. If being an activist will help where I want to get to, then great employ some of those traits but sometimes it’s about taking a more considered approach.

He is then seeing that his role is one of a strategic approach, the “long game”, rather than marching but is also celebratory “we’re championing stores that are doing the right thing” and firmly based on action and impact, “we can make a massive difference – the programmes we’re implementing potentially affect millions of people within New Zealand”.

Marketing professor Brendan Gray (2013) sees himself as a protagonist- he a passion for change “My heart is not in a place that is focussed solely on making money, business has to be about more than that”, but activism is something to do outside work “I’m a volunteer at the wildlife sanctuary”, he decides his preferred term is an “active pacifist”.

In the case of Andy Williamson (2013), a researcher in democracy, he prefers agitator. This is not a matter of semantics; he clearly differentiates his role from that of an activist:

I can be. I can be stroppy and awkward when I want to be. I don’t think I’m an activist particularly, my role is perhaps more of an agitator. I have the privilege of working on both sides of the system. I think one of the problems of activists, is they become...activist can be a negative term because an activist can be seen as someone is simply taking one issue a little bit too seriously, and shouting a lot about it – they’re probably right and have a good point, but they can be a bit of a one trick pony, and that can start to be a bit of a pain in the side, and they’re really necessary and they do a really good job, but actually there’s a need for a second lot of people who come along and work with both sides. The future isn’t about us or them, it’s not about citizens and politicians – we talk about “citizen engagement”, it’s almost patronising. We should be talking about participation in the broadest sense, we should be looking at partnerships. The role that I have, and I’ve created a fascinating niche in a way is that I work with both sides. So I’m more of an agitator for change across the whole system than trying to be dogmatic about the need to create this revolutionary change.

Williamson sees his role as action, and he clearly has passion for change, but he sees that the way to achieve that change is by “working both sides of the fence” – so not staying neutral on the need for change, but clever positioning on achieving that.

3.2 Different roles

For some the association of activism with protest groups provides a binary classification, but for others it is one end of a continuum. Paula Owen (2013) is a sustainability consultant:

You’d have to define activist, because at one end you’ve got Greenpeace activists that go out on boats risking their lives - to stop whalers, scaling buildings, I don’t do that. But I’m not an armchair activist – I’m somewhere in the middle of that. So yes, it’s my life, always has been my life. I’m passionate about it. I’m a practitioner in my private life as well as preaching about it in my professional life. So yes, I’m activist but I’m somewhere in the middle of that spectrum. A change agent.

Others see their roles separately to that of the activist. Museum director Sir Neil Cossons (2014) “I think the best thing I could do was support activists. Many of the best things have happened because of lunatics with fire in their bellies – I like to think I’ve been an animator of lunatics”.

Science historian Naomi Oreskes (2013):

Not really, I teach classes and do my research. Students often ask me...“what should they do?” and I always say you have to figure that out for yourself – based on who you are, what your temperament is, what your personality is, what your talents are, what resources you have at your disposal...so I’m a scholar, and I love doing the work I do. I feel like I’ve ended up in a place that has worked out being meaningful, and valuable, and I think the best thing I can do is keep on doing what I’m doing.

3.3 Science: credibility

For some practitioners activist sits uneasily with science. Beth Karlin (2013) studies transformative media. Her professional dilemma over activism is apparent here:

I’ve become much less of an activist as I’ve become more of an academic. I used to be much more. It’s hard this activist-scholar divide. I study activism and am very much interested in activism. I think right now I’m a facilitator and a trainer of activists. I work with activists. I am less of one at the moment. There are things that I care deeply about but I think that my role right now is understanding. I guess I’m active in that I’m selective about what I study, who I work with – what movements and organisations. Were it 1938 and Hitler said “can you help me with my film”, I’d like to think I might say “no”. ...Gosh it’s a hard question, I’m talking around it, I want to just go “yes” but, I believe in the power of activism, and I think that what I’m trying to do is better understand how we can be more successful at activism.

Marine biologist Barbara Taylor (2013) talks about a fine line between scientific credibility and passion. She similarly distances herself from the popular image of protestors:

I guess I wouldn’t use that word, I would use the word conservationist. I think there’s quite a fine line between being an advocate and being a conservationist, and scientists try very hard to maintain our scientific credibility. But on the other hand, when you’ve worked like I have with vaquita and it’s something that you’re passionate about, you become an activist to some extent just by expressing how important it is to save these animals. But on the other hand, it’s not the same kind of activist you see on whalewars. It’s a very different kind of thing, I’m not going out and trying to destroy gear on small fishing boats. Or something like that.

Taylor is clearly active and passionate but wishing to stay neutral. Others expressed similar sentiments. Marine mammal policy advisor Philippa Brakes (2014) “I wouldn’t call myself an activist, I’m an advocate. I’m a scientist who also works in the

policy end of the debate” but she does this from a strong feeling of responsibility:

As an eleven year old we visited a zoo in Thailand and saw an elephant in chains....and I went on and on about it...eventually my father said, “If you feel so strongly about it, why don’t you write to the King of Thailand” so I did. And that was the beginning of my career of feeling that I needed to represent those who don’t have a voice.

3.4 Objectivity

Marine biologist Sarah Courbis (2014) argues that “as a scientist it is really important for me to go into a situation and do my research without having a desired outcome – I just want to see what’s true. Whether or not that supports my opinion, maybe I’ll need to change my opinion”. She says, however, that she is an environmentalist and is driven by a desire to “understand and take care of our environment – and I’m hoping to do my little part to help that”.

A slightly different take also illustrates the relationship of scientific method and activism. Science innovator Henk Roodt (2013) says he’s not an activist because “I’m not smart enough. To be an activist you have to understand things, really clearly, (you’re pretty clever), yes, but I don’t understand things that well, I’m not clever enough to be an activist”. Likewise computer scientist Chris Preist (2013) says he is a “thoughtful activist...in some ways a really successful political activist is certain about the solution they’re proposing. And I’m too academic to ever be certain”.

While Courbis points to the objectivity of scientific method, Andrew Tait (2013) focusses on the communication of science. Tait is a climate scientist and scientific advisor to the government. In this role he is determinedly not an activist. He makes a point of staying out of the political and when asked whether scientists should use terms such as “safe”, he replies “to me is going beyond what a scientist should be doing”. He recognises the frustration of “providing the best information they possibly can for a decision-maker to use and seeing that the information isn’t being used well”, but for him “From my perspective I’m not prepared to get into that area”. It is important to note that this is a carefully considered position, and not from a lack of concern, rather he believes that the best job he can do is to stay dispassionate:

I want to help as much as I possibly can. ... We’re such a small community of scientists that we do get involved in discussions with policy makers at all levels – and we can be at the personal level of talking to a minister, or a CEO. But they don’t want us to be telling them what to do. I don’t think anyone wants someone coming in from an ivory tower telling them what to do. But people appreciate the effort that we make to try to connect with them – to say, if you want to making the best decisions you possibly can, then please take account of this information and understand how it was derived and what its implications are. The scientist can do a lot to make that bridge.

Others have similar views, Robert Wade (2013), for example, describes himself as “an analyst rather than an activist”, and film maker Tess Brosnan (2013) “I’m not an activist, I’m a packager, I can be more useful by remaining neutral so that I can be a filter”. Jay Barlow (2013), also a marine biologist, “shies away from the role of a pure advocate because it is really difficult to keep your scientific credibility if you appear too passionate, and let your passions outrun your academic approach to the science”, but, he adds, “on the other hand, my passions drive what science I do”.

This objectivity can be challenging. Is geneticist and science communicator Jean Fleming an activist? (2013)

Not quite yet, I’ve got to retire first next year...actually yes, I’ve been an activist all my life. When I went to the royal commission on GM I had to suddenly wear a bra, and be like a judge, and so that really put the kibosh on me being a real activist for quite a while – I’m just beginning to come out the other end now. I was a great feminist in the 70s and 80s. And that got knocked out of me but the dark is rising.

Naomi Oreskes (2013) has a different take on this:

The naive vision of ‘we do the facts then hand it over to the policy makers and they act on it’. That would be great in a perfect world, and it worked for ozone so scientists could be forgiven for thinking that was realistic, but it hasn’t worked this time around.

The whole issue of climate change is now so political and so difficult that I think a lot of people in the scientific community are kind of spooked. And they’re nervous and they don’t really know how to respond. And I think a lot of scientists think that if they’re just very cautious and very careful and very conservative that that will preserve and protect their credibility.

Absolutely scientists should be conservative and should not make claims they cannot support with evidence and high quality data...the question is once you have that data, what do you say about it? And if you don’t think the world is responding, if you don’t think the world gets it, then that tells me that you aren’t communicating it clearly enough.

How do we communicate clearly in ways that are effective and truthful and correct? It’s not an argument in favour of exaggerating the science or saying things that aren’t true. It’s about taking what we believe to be true and communicating it clearly.

Oreskes asks if there is something more that scientists should do, short of engaging in civil disobedience? That, she says “would be a really useful conversation for science to have – because what they are doing now isn’t really working”.

3.5 Colourful communication

Rural geographer Rob Burton (2014) doesn’t see himself as an activist (he describes as a “realist which is a cynic with a better cause than just being cynical”) and he is selective about his work “I always try to do things that are important rather than unimportant. There is unimportant work being done out there that is pretty irrelevant – I don’t like doing that”. He too saw the protesting side of activism as a barrier “I’ve never protested anything...no I don’t think I’m an activist but I do what I can... but like to be able to put a perspective across that may make people think a bit differently- or make a difference in the end” . It seems that consciously considering communication is key. A comparable focus on presenting different perspectives comes from Lloyd Davis (2013), a professor of science communication:

I’m a poet or artist - it’s the part of me that wants to combine the colour of the world with the black and white sketch we produce as scientists. (But are you an activist artist or poet?) People would say I’m neither. (an activist scientist then?). Yeah, I don’t know whether I’d call myself an activist, I’m a promoter more than anything. And I’d like to think I had poetic leanings, not in the sense of being able to write poetry, but at least colouring the things I write about.

Robin Moore (2013) is a zoologist who both researches and campaigns for the Amphibian Alliance who only reluctantly accepts the activist moniker. For him the goal is to “scale-up amphibian conservation”. His work combines science and habitat work with active campaigns such as the Search for Lost Frogs campaign; the Metamorphosis project (where a self-described activist model wore frog body paint to be photographed with frogs); and the Frame of Mind campaign. The

goal is to “trying to engage an increasingly broad range of people”. This means dealing with the media which means “walking a fine line with maintaining scientific integrity, when you engage with the media you lose to a certain extent the control of the message. The story that gets picked up may not be the story that you want to tell”.

Marine biologist Barbara Taylor (2013) is active and passionate but wishing to stay neutral yet she makes Vaquita art, clothing and jewellery. “Oh it’s all encompassing? We’ve tried every angle we could to engage the public in this animal”. Tara Whitty (2014), also a marine biologist, shies away from the connotations of the word activist but admits to being “a quiet activist that prefers to influence things by hard work that provides evidence- and that is respectful of the people involved in the issue that I am protesting”. There is an valuable lesson here in the importance of maintaining a holistic perspective

I don’t come in saying “hi guys, I know you’re struggling to survive, let’s save the dolphins...For me it has become as much about understanding and helping these communities as it is about helping the animals.

3.6 Privilege and responsibility

Sir Alan Mark (2013) is an Emeritus Professor of Botany who was knighted for his services to conservation. He has led many national conservation campaigns, significantly starting with opposition to a lake raising “I was provoked by the engineers of the day playing God, claiming publicly that raising a lake 27m would improve on nature”. Mark has no problem with taking an activist role – indeed, he says, it is an obligation of the privileged position of the academic:

I’m willing to speak out. It’s important I think for scientists to reveal their findings to the general public. Some of them are controversial, that’s the nature of the work...academics are privileged as being the critics and conscience of society, so that’s a huge privilege, and carries a huge responsibility to stick with your own credible information and convey that to the public... so it can be assessed and debated.

Crucially, taking an activist stance has not meant giving up on a scientific career, “we exercised applied ecology and it worked like a charm”. Indeed the scientific integrity became even more important as his work came under scrutiny.

We’ve had some battles royal with some runholders who’ve wanted to undermine the credibility of my work ... (complaints to the Vice Chancellor about me), ... there were some rough patches, but the research stood up ... some of their methods were a bit underhand I thought, but I’ve always insisted on keeping talking to these people, to try to convince them, demonstrate in the field, some good field trips debating the issues.

Australian academic Liam Phelan (2013) similarly sees activism as a responsibility. He says “My primary research interest is sustainability and how to achieve it” – he says his “absolutely an activist”, describing his motivation as “wanting to do something, wanting this world to be different and making that happen. And feeling that I can actually make a contribution in this – and feeling some responsibility to do so”. This feeling of responsibility, however, is not just felt at a personal level:

I feel that university is a place you can do activism. You could also work at Greenpeace, go to parliament, wherever you like. There are real places you can do activism. Activism is an activity, it is an active approach.

Phelan argues that this does not conflict with the objective, critical thinking role of the academic. Indeed he contends that activism requires critical thinking

that’s how I came to be teaching at the university. The privilege of being required to do critical thinking in the cause of activism...with civil society organisations...exposed all the time to cutting edge thinking, but sometimes without the time to spend thinking more deeply – theorising – these things are possible in academia.

He responds to Fish’s “save the world in your own time” (2008) by saying “that worked for a while, but those days are past. The idea that scientific research, critical thinking can exist without some explicit normative basis is silly”.

Linguist and sociologist Alison Phipps (2013) was hesitant to describe herself as an activist but has a perhaps deeper justification for activism in academia.

It’s a hard word, I’ve used it of myself, but I’ve always been a little shy of it. Maybe it is because I’m a bit of a poet – maybe there’s too many consonants in the word. I do. But I believe profoundly in solitude and rest and quiet. And the more I try and do, the more I know I have to not do. And those are very contradictory dynamics. But I think I discover when I have been very active and moving very much, but it is important to sit and stop and think - watch and take stock and be restored by what is around me. So yes I do and yes I don’t consider myself to be an activist.

She points to the teachings of Pierre Bourdieu that led her to question what it would look like if we took personal responsibility for problems caused by academia being separated from the natural world

the material conditions of our educational systems in Western Universities are based on the fact that we are not required to grow our own food and make our own clothes. And that led me to ask the question, and what would they look like if we were? And how might we grow and spin a university if it were

Rather than detracting from the core role, this is passion and belief in change (activism?) is improving the mission of the university:

The university is opening out from the days that it was theoretically an ivory tower – I’m not sure it ever has been an ivory tower but it certainly has been a place of the elite. We are now seeing universities setting up communities and projects (community gardens etc) and it is being changed by that – new knowledges are coming onto campus. This is very exciting as the university has to move its thinking around as people go to work in different communities.

In considering how much personal responsibility do we need to take Phipps’ appeals to the notion of the critic and conscience of society applies not just to the university and the people with in it:

It’s important for me as an academic to try to live as an alternative, and to let people draw their own conclusions, and to decide for themselves to decide whether it is for them to live that alternative. I cannot live otherwise. But this was never a revolutionary action, yes I’ve been engaged in action all my life, but this wasn’t one huge enormous change, these were small steps. I wonder what life would be like if I didn’t have a car...? What would life be like if I filled my home with people who would otherwise be destitute...? There are no answers to these, but with anthropological training I know what can be learned from experience. So in a sense it is a new adventure to try and live in these ways and find out what can be learned. What I’m learning, perhaps is the beginnings of an art of forgiveness, compassion, and possibly humility.

In response to questions about Fish’s criticisms of the activist academic, Phipps counter-claims :

Critical thinking is not enough. If we really are going to create the conditions for action in whatever the world presents us, and we are going to do it with a degree of dignity, and in a way that we acknowledge that we are bound together, and that we are wholly dependent one on the other, then it is about more than thought – it is about action.

This notion of responsibility is not restricted to academics, in retail Mike Sammons (2013) is “very aware of the of the responsibility I have – how good the research has to be, how tight the business case has to be, we’re potentially affecting 700 different businesses and millions of people”.

3.7 Passion for change

Perhaps the most consistent message from the practitioners, is that no matter whether the term activism applies or not, almost all demonstrate a passion for change. The normative basis described by Andy Read (2014) is not just an academic exercise. He argues that “inaction is failure – the wickedness of problems is no excuse”. Further, the applied nature of the questions, raise the level of academic challenge:

Tricky conservation problems keep you up at night – how to balance the needs of social justice and feeding 60 million desperately poor, with the ecological needs of 80 dolphins who are the last of their species.

Truly wicked problems are ones that don’t have answers, if they did they wouldn’t be wicked.

Others describe the opportunity of change. Museum Director Ian Griffin (2013) says he is not an activist but “works in a museum because museums have the potential to change lives”. Also not an activist Henk Roodt (2013):

You have to make certain choices, and that comes down to ‘what are those guiding principles you have in your life that you are willing to live by?’. You have to set those up in your mind and listen carefully to that voice. I ask myself: can I change things by applying my skills?

Nicole Foss (2013) is an analyst and author. She describes as an information processor (“an activist in a way”) “But it’s just about trying to process the information and bring to people in a form that they can use it to hopefully achieve a better future than they would otherwise have had”. What is important here are her motivations, even though being active is a harder route than her personal alternatives, the consequences of not doing are catastrophic

So I couldn’t sleep at night if I couldn’t do this – if I didn’t think it was possible to achieve anything I would have just stayed back on my farm, and not bothered to do anything, not bothered to reach out to people at all. But because I think there is a great deal to be gained from building community and doing things fundamentally differently if we do it in advance, then even if the odds of success are not always particularly high... because we know from the lessons of history that if we fail we’ve in for a bleak period that won’t be very much fun for quite a long time.

While Foss is trying to avoid catastrophe, others see an active role in learning from failures. Tara Whitty (2014), for example says that even if we lose some sub-populations of dolphins, “what I think to cheer me up, is at least we can learn from the failures. That would motivate me each day – to learn what is working and not working”.

3.8 Different levers, but all focussed on good

Practitioners describe the different levers they can pull to effect change, and for all of them here it is about making a positive difference. Louis Brown (2013) says “I mobilise people to do good. Michael Daddo (2014) aims to “inspire people to make a change willingly and for good, the more we can do that the

better. He describes himself as “someone who knows how to use my skills and organisational learnings...a track record of how to get a better outcome”.

The greatest thing we can do is change the world in some shape or form for the better. If we can all find ways to contribute to that, in whatever way we can, then we should do that and seek those opportunities.

No matter what role we have in life, we all have the ability to contribute to changing the world for the better – so we should always look for opportunities to do that and go for it as hard as we can.

Green-tech entrepreneur Nick Gerritsen (2013) meets Daddo’s urgings, his ventures are “not about money, it’s about creating a dimension of change”. His interpretation of activist is one of about commitment:

If it is being silly enough to have an idea and to be able to dedicate a part of your life to it, and be responsible for it, and back yourself on it, then yes. All I’m trying to do is do the best that I can with the resources of time and energy that I have. It’s exciting, stressful and enlightening all at once.

Science writer Guy Harrison (2013) wants to effect change by promoting sceptical thinking

For me scepticism is a moral issue. I care about people, I care about the world, so I feel I have to speak up about this. I have to encourage people to think more clearly – there’s so much nonsense out there that’s harming people.

He says he is realistic but optimistic:

We are in reach of a overcoming racism, poverty, and disease. We can overcome these things and really do better. It is possible. Doesn’t mean we will, but it is possible and just that possibility should fuel one with hope. It is something to work for and reach for – it’s there, we’ve never been closer. And to get there we need scientific thinking, we need a world filled with good sceptics so we that don’t waste time on pseudo-science and superstition. We can focus more on real social progress, real economic progress, real technological progress for all and devote more time for each other.

Marcus Byrne (2013) studies dung beetles and uses that as a platform for talking about science “we use crap as a vehicle for discovery”. As a science communicator he is happy to take an activist role and feels some responsibility for doing so: “We owe it to the public. We live in a society that allows us to do these crazy things, and it’s my job to give back, one: the knowledge and two: the process”. For him, part of the message is that science is that “science is not a creed – it can be bent, folded, stapled, beat-up in any way you like and it still works. It’s this self-correcting system that doesn’t need respect”.

Jon Foote Foote (2013) sees his lever as teaching everyone to grow food:

I wouldn’t paint myself with a full activist brush. I’m passionate about the belief that we have a way out of the current situation and that we need to act on it. Nothing will change without action, and action in a positive direction is great. I’m not a big protester...what most activists do, and chain themselves to trees...I did a bit of that in Sydney and realised, you know I’m not achieving a lot – I’d rather go out and teach everyone how to grow food. The activist part of me says ‘you know if we grew our own food, and we had organic farmers, and lots of local systems going on, that in itself will bring down the industrial food system’. So in a way I may be an activist, but I want to do it in a way that is positive so that people can work towards something that is

actually beneficial – it's not just grumping about things that are wrong. So let's do the things that are right.

3.9 Beyond Activism

Beth Karlin Karlin (2013) points to the “increasing realisation that slavery footprint movements, and environment movements, and equality movements...are getting at the same principles and ideas”. This means, she asserts “we can get beyond activism to just practicalities of change”. She argues that sustainability “almost beyond activism – it's just ‘how do we survive’”. She says that we shouldn't need to be activists, we should just be smartly solving problems together. Does this perhaps mean that we do not need to be Widener's “hyphenated activists”? Can we just be computer scientists and not have to explicitly say that we are ICT for Sustainability?

Dolphin Research Australia's Isabella Keski-Franti (Dolphin Research Australia, 2014) did not want to be called an activist “I don't like labels because I think they limit us”. She almost apologised for the great work she is doing.

If I am making the change through connecting with children, helping them shift the status quo of our society – the focus inter-generationally speaking, for the families and our future – I see this as an activism. If others want to be more actively participating in manifests...I think that's perfect we need all these ecosystems working together,

Zoologist and science communicator Henrik Moller (2013) says that he has always been an activist “in the past I used to strut my stuff– yell my opinions, I had no shadow of a doubt that the system didn't have the solution”, and took active roles in everything from racist tours to environmental defense society including Amnesty and homosexual law reform. But “at the root of this I'm a humanist, it's about respect for people, because in the end that will lead to the big reciprocity of looking after plants and animals”

I was so puzzled then as an activist, I had a favourite Amnesty poster – a typewriter with barbed wire – and I gave it to a friend and went round to his place a few months later and there was my beautiful poster scrawled over the top ‘but what about the environment?’. And I thought that's really weird, I had seen the whole thing as a power – power over people, power over environment. They come from the same sour well, where very few lasting solutions will emerge.

Moller now hopes “I'm an activist but working in a more subtle and inclusive way, some might even say a more cunning way. But this comes from a changed belief that the solutions are very much more about a patience and slow resolution and dialogue”.

We need to avoid a shootout between different constituents. We could call it pluralism, let's go for “and” rather than “or”.

We're failing conservation-wise, you could point to a lot of things...species declining...but worse we've created this idea that to be a greenie is to be a leftie, radical and not very practical, and not embracing economics. We've created a bit of a prison, the ideal would be if we could all see, not matter what we vote, that we're all seeing the importance of environmental sustainability as sustaining us all, the platform on which we all stand.

We need to abandon war talk...if we carry on with fences between ourselves – saying that person is a conservationist and that person isn't, we'll be divided and fall....We're all in this together.

Several of the practitioners differentiated their role from a protester, “I'm not a Greenpeace activist” they said. Ironically, in effect so too did the Greenpeace activist. Nathan Argent is Chief Policy Advisor for Greenpeace NZ (2014).

An activist largely depends on peoples' definition an perception of what an activist does...Am I active in trying to change the way we do business, the way we power our homes - that we do in in a much smarter cleaner way, that we reduce pollution? then yes, I'm an activist in that sense, But I think as I'm becoming older and my experience and knowledge has grown, I'm probably more of a pragmatist...pragmatic but in a disruptive sense.

While Greenpeace as an organisation does “need to be out there agitating” and “we are reliant on the vast number of people who come to us to volunteer to be part of the grassroots activist movement”, the lion's share of the work is about engaging with business “sitting at the boardroom table, pushing in the right direction and sometimes holding their hand”. This is done with the passion and belief in change expressed by many of the practitioners:

Thinking about the landscape, thinking what are the pragmatic ways that we can reach our goals, but ensuring that those goals are always pushing the boundaries of change. Trying to disrupt the ways we do things, trying to shift the paradigm

4. OBSERVATIONS

The authors attempt here to summarise the emergent themes, applying them to Computing for Sustainability and HCI in particular:

- There is an expectation that we should be engaged in trying to make a better world. This expectation may be motivated by responsibility to society or by external factors such as academic responsibility.
- Activism is a spectrum of behaviour from working within the current paradigm to deliberately interfering with the current paradigm directly (direct action) - all are working to change something upon which we hold a passion.
- Typically, ICT has too narrow a focus on technological materialist fixes within the current socio-economic paradigm. The entire ICT sector's challenge is to broaden its focus and innovate for sustainable solutions that create new paradigms.
- Sustainable HCI should be a transformative process of citizen re-engagement with the economy, society and environment.
- Individuals should use current skill sets to inform and engage as an activist; the hyphenated activist.
- Engaging as an activist does not require an abandonment of objective science (although some question whether objectivity is possible regardless).
- Computing for Sustainability Activism is positive problem-solving.
- HCI enables individuals to build communities as well as examine the power imbalances and structural barriers that prevent positive sustainable change to take place, shifting the focus from the individual to the community as the agent of change.
- We are a long way from computer science being considered a normative science in its own right, until then we shall have to adopt an activist lens and label activities as computing for something.

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